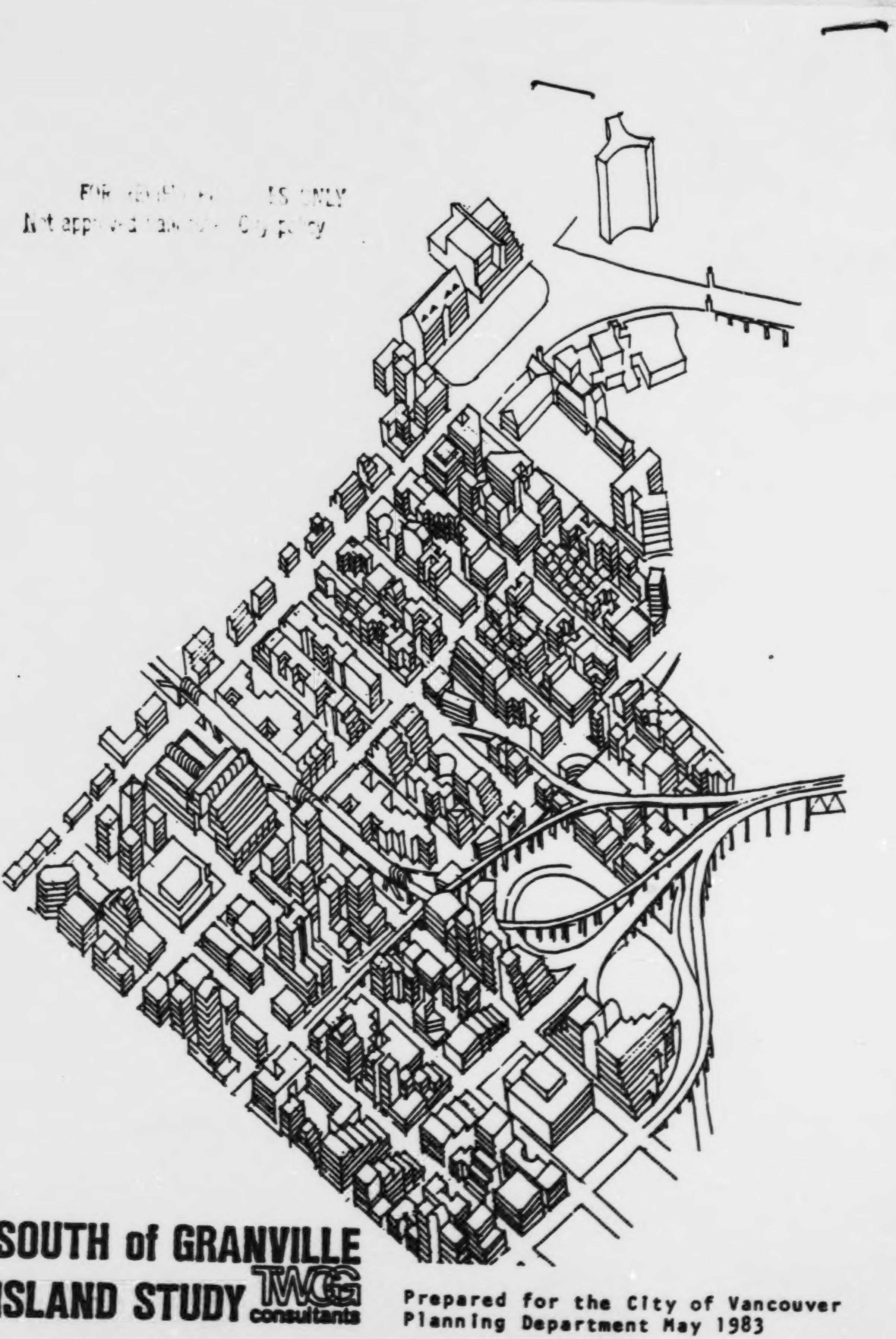
FOR DISCUSSION PURPOSES ONLY
Not approved as [illegible] City policy



SOUTH of GRANVILLE ISLAND STUDY

TWCG
consultants

Prepared for the City of Vancouver
Planning Department May 1983

34✓

C.C. 66 MLH/80

CITY OF VANCOUVER
MEMORANDUM

From: CITY CLERK

Date: 28th July 1983

To:
CITY MANAGER
DIRECTOR OF PLANNING
CITY ENGINEER
DIRECTOR OF SOCIAL PLANNING
GENERAL MANAGER, PARK BOARD

Refer File: 8011-2

Subject: SOUTH OF GRANVILLE ISLAND CONSULTANTS' REPORT

Please be advised that City Council at its meeting on Tuesday, July 26, 1983, approved the recommendations of the Planning & Development Committee as contained in its attached report dated July 14, 1983, with regard to the above matter.

R Henry
CITY CLERK

USolomon:mfm
Att.

Also sent to:
T.W.G.G. Consultants, 1970 Ogden Avenue V6J 1A2

EXTRACT FROM REPORT TO COUNCIL
STANDING COMMITTEE OF COUNCIL
ON PLANNING AND DEVELOPMENT
JULY 14, 1983

2. South of Granville Island Consultants' Report

The Committee considered a Manager's Report dated July 6, 1983 in which the Director of Planning conveyed the recommendations of T.W.G.G. Consultants' "South of Granville Island Study" dated April 1983 (report and study on file in the City Clerk's office) and City Staff's preliminary advice on the consultants' recommendations.

Mr. J. Coates, Planner, described the study area: approximately 150 acres bounded by Burrard Street, False Creek, Hemlock Street and Broadway. The area is primarily industrially zoned and higher value residential/commercial lands surround it. On-site uses and nearby developments have created traffic and parking problems. Accordingly, the consultants were retained to prepare for the area a broad land use concept plan, circulation system plan and urban form recommendations under terms of reference including assessment of:

- desirability of permitting office development in industrially zoned lands
- desirability of permitting residential development (exploring land use mix and densities for both)
- circulation/parking problems and urban design alternatives.

The following summarizes the consultants' recommendations:

- M-1A "Industrial" be rezoned CD-1
- Proposal for the former Bekins storage building for mixed residential/commercial development be encouraged
- M-2 "Industrial" to remain for properties north of First Avenue and east of Burrard Street and Seaforth Armories site to be rezoned M-2.
- For all land between First and Sixth Avenues west of Fir Street, including Block 230; new zoning category characterized by:
    - basic use: multiple family residential
    - permitted conditional uses: light industrial and service commercial
    - retail content at street level frontages of Fourth Avenue
    - retail uses permitted as conditional use at street level frontages of Burrard Street
    - maximum FSR = 2.0
- C-3A "Commercial" zoning for properties south of Sixth Avenue and properties between Third and Sixth Avenues east of Fir Street
- Seaforth Park and Granville Bridgehead to be designated "Public Open Space"
- B.C. Hydro rail lands to be added to Vanier Park.

In considering the consultants' recommendations, the Committee and City Staff were concerned with the compatibility and feasibility of the residential/industrial mix recommended and possible future transitional problems, especially in relation to emerging Coreplan policies and present land use. Other concerns were traffic, parking, questionable marketability of residential lands, appropriateness of rezonings to future high tech industry development, demographics and employment loss. Staff felt that existing commercial/industrial uses should not be displaced. In addition, the Committee was supportive of having the Planning Department report back on implementation of the False Creek - Vanier Park pedestrian link.

Clause No. 2 Continued

After discussion, the Committee and City Staff agreed that the Consultants' recommendations regarding zoning and land use require reconsideration and the Committee

COUNCIL
26 JULY 1983

RECOMMENDED

A. THAT South of Granville Island Study report by T.W.G.G. Consultants be released and circulated to interested parties for comment, with a covering note indicating that the City Council is not favourable to the major rezoning recommendations of the T.W.G.G. Consultants. APPROVED

B. THAT the Director of Planning report back after public comment has been received. APPROVED

SUPPORTS ITEM NO. 2

MANAGER'S REPORT

DATE: July 6, 1983

TO: Standing Committee on Planning and Development

SUBJECT: South of Granville Island Consultants' Report

CLASSIFICATION: RECOMMENDATION

The Director of Planning reports as follows:

"PURPOSE

This report is to convey the recommendations of T.W.G.G. Consultants for the South of Granville Island study area, and to provide preliminary staff advice upon these recommendations.

BACKGROUND

The South of Granville Island area, comprising approximately 150 acres, is bounded generally by Burrard Street on the west, False Creek on the north, Hemlock Street on the east and Broadway on the south.

It is primarily industrially zoned and is surrounded by higher value residential and commercial lands. Market forces have created pressures for highrise commercial and highrise residential development. Increasing commercial use within the area and developments nearby on Granville Island and False Creek have created traffic and parking problems.

T.W.G.G. Consultants were therefore retained in February, 1982, to prepare a broad land use concept plan for the area, together with appropriate plans for circulation systems and urban form recommendations.

In accordance with the study's terms of reference, T.W.G.G. Consultants have:

1) assessed the desirability of permitting office development within the existing industrially zoned areas

2) assessed the desirability of permitting residential development, in each case exploring land use mix and densities

3) assessed circulation and parking problems

4) assessed urban design alternatives

The ~~attached~~ report was submitted on May 3, 1983.

ANALYSIS

The thrust of T.W.G.G.'s recommendations is to rezone some seven city blocks of the existing light industrial area between 1st and 6th Avenues, Burrard and Fir Streets, to multi-family residential use. Six of the remaining ten industrially zoned blocks are proposed to be rezoned to C-3A type commercial use.

Staff consider it important to advise Council of certain major implications of the consultants' recommendations, before they are made available to property owners and the interested public. These implications involve:

1) Compatibility and feasibility of residential use with remaining industrial use

2) Relationship of industrial and commercial use recommendations to emerging Coreplan policies

Our consultants' recommendation for multi-family residential future for much of this area would seem to have merit, if there were not already a major commitment to industrial and related service commercial use in the area. It would seem to make sense also in terms of the very general draft Coreplan goal of increasing the city's housing development potential, however, it is considered likely that transition to a residential future would be gradual and difficult given the limited long term market for multi-family residential accommodation and the general incompatibility of existing uses, building forms, and traffic and parking problems. The major permanent industrial operation, Molsons Brewery, has made strong objections to potential residential development.

The draft Coreplan also reflects the potential goal of encouraging the industrial future of core industrial areas. Adoption of the consultants' recommendations will largely preclude this option for this area. The South of Granville Island area is considered by staff as one of the most suitable locations for potential high teck industries. Of particular concern to staff is the upward pressure these recommendations may have upon land values, as this alone may preclude an industrial future for the area.

Much of the remaining South of Granville industrial area, centered on Granville and also south of Sixth Avenue, is proposed for C-3A commerial type use. In round figures, this could result in an ultimate increase of some 6,000 workers, whereas the proposed new residential uses would generate an ultimate population of some 4,000 residents. The net effect is, therefore, contrary to the local area goals quoted by the consultants "to reduce the imbalance between office and residential zoning."

In summary, it is considered that T.W.G.G. Consultants have recommended a legitimate future land use alternative for South of Granville Island. It is not, however, generally favoured by civic staff for a number of reasons, of which some of the more important have been noted above. It is expected that subsequent, more detailed staff reporting will favour a land use future based on combined light industrial and general business use, including high teck.

NEXT STEPS

There has been considerable public interest expressed in the recommendations of this study, particularly amongst property owners and realtors. It is considered that: 1) these recommendations should now be released for public comment, but with some clear indication that they do not represent City policy and that an alternative, more industry based future, is also being considered by the City; and 2) that staff should then make land use, circulation and urban design recommendations after public comment has been received.

RECOMMENDATIONS

The Director of Planning recommends that:

1. The South of Granville Island Study report by T.W.G.G. Consultants be released and circulated to interested parties for comment, with a covering note indicating that the City is also considering an industrial based future for the area.

2. The Director of Planning report back after public comment has been received."

The City Manager RECOMMENDS that the recommendation of the Director of Planning be approved.

TWGG
consultants

K. G. Terriss, M.R.A.I.C.
J. Y. Wai, M.R.A.I.C.
J. F. Gilmour, M.R.A.I.C.; M.C.I.P.
A. B. Green, M.R.A.I.C.

Mr. J.P. Coates
Senior Planner
Central Area Division
Planning Department
453 West 12th Avenue
Vancouver, B.C. V5Y 1V4

May 3, 1983

Dear Mr. Coates:

We are pleased to present our study on the South of Granville Island Area.

It has been a challenging study because of the contrasting characteristics of the area. The area has been somewhat of a "backwater" as development has occurred around it but yet it has potential because of its pivotal location. Certain parts of the study area are already responding to adjacent developments and it seems appropriate to recognize that fact. There is however a large part north of 6th Avenue currently industrially zoned, and relatively underused which gives the city the opportunity to realize certain long-term goals. In this somewhat controversial area, we have recommended the reinforcement of the Kitsilano-FCCDD residential band. The locational characteristics of this part of the study area, in our view, outweigh the demands for inner-city industrial areas and the ample supply of commercially-zoned land in the general area counters the speculative pressure for office building sites. We recognize that this recommendation has raised a number of issues in various civic departments. However we feel that those concerns have been resolved in the context of the broader issues.

Another important issue brought forth in the study has been the need to resolve the access to the newly-developed sites adjacent to False Creek. These former industrial sites have taken on new importance as residential, institutional, commercial and recreational areas. The new circulation networks required must be integrated into the existing street system to the mutual benefit of both.

Our recommendations have come from a prolonged study period during which we feel we have given the conflicting demands full consideration. We trust that the study will give your department a sound basis upon which to make the specific planning decisions required for the fruitful development of the South of Granville Island Area.

Yours truly,

TWGG CONSULTANTS

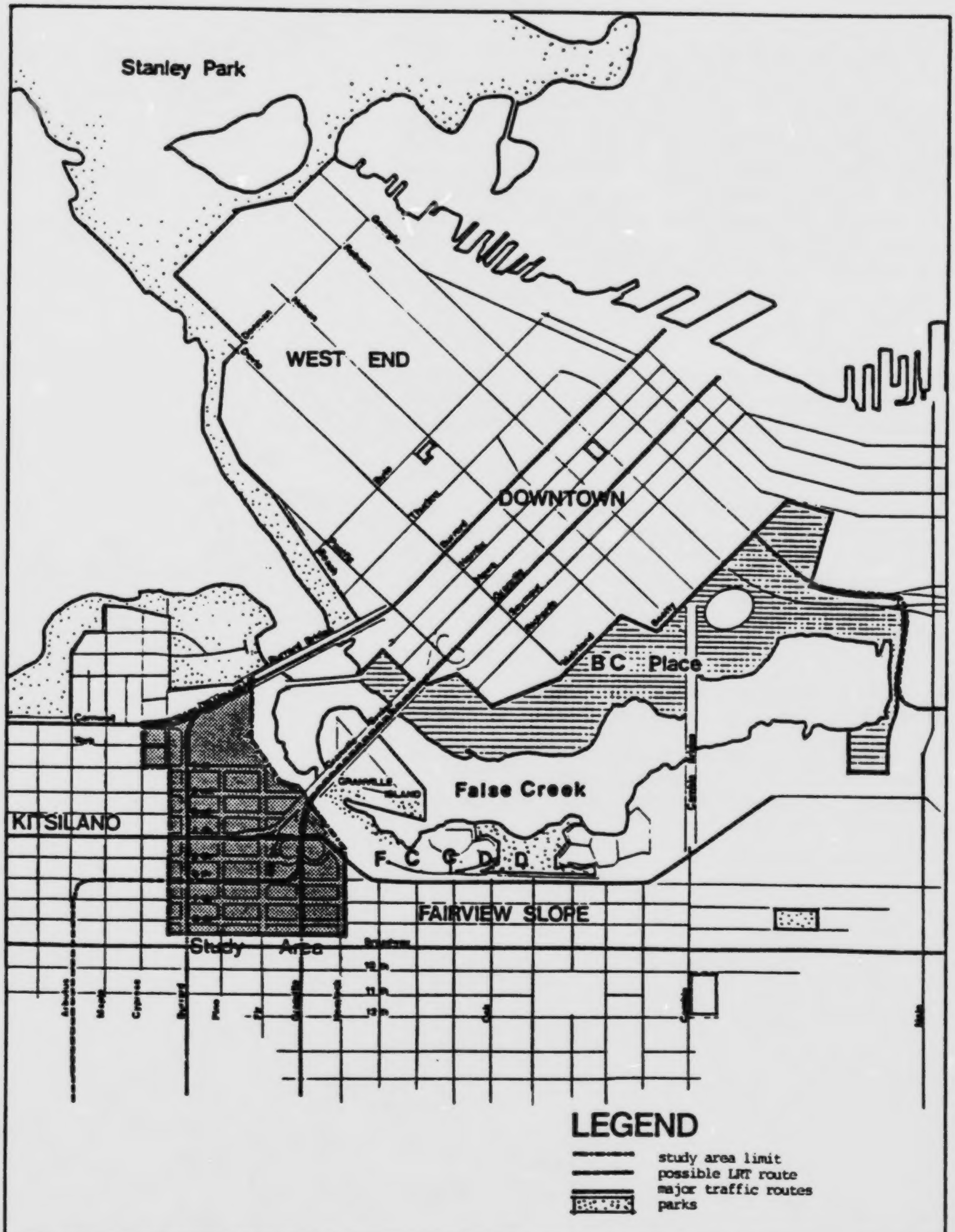
K. G. Terriss.

A. B. Green.

J. Y. Wai.

J.F. Gilmour

J. F. Gilmour.


Stanley Park
WEST END
DOWNTOWN
B C Place
False Creek
GRANVILLE ISLAND
KITSILANO
FAIRVIEW SLOPE
Study Area
F C G D D
Broadway
10 th
11 th
12 th
Arbutus
Maple
Cypress
Burrard
Pine
Fir
Granville
Hemlock
Oak
Cambie
Main
LEGEND
study area limit
possible LRT route
major traffic routes
parks

SOUTH of GRANVILLE ISLAND STUDY TWGG consultants

Urban Context

INTRODUCTION

The South of Granville Island Study Area, bounded generally by Burrard Street, False Creek Comprehensive Development District, Hemlock Street and Broadway, is in a pivotal location in relation to the Downtown Peninsula and the continuing redevelopment of the False Creek Basin. It has therefore been the object of considerable development interest. Because of its relative under-use, the South of Granville Island Study area is overdue for re-assessment of its redevelopment.

PURPOSE

The purpose of this study is to prepare a land use concept plan, together with the related movement systems and urban form recommendations.

PROCEDURE

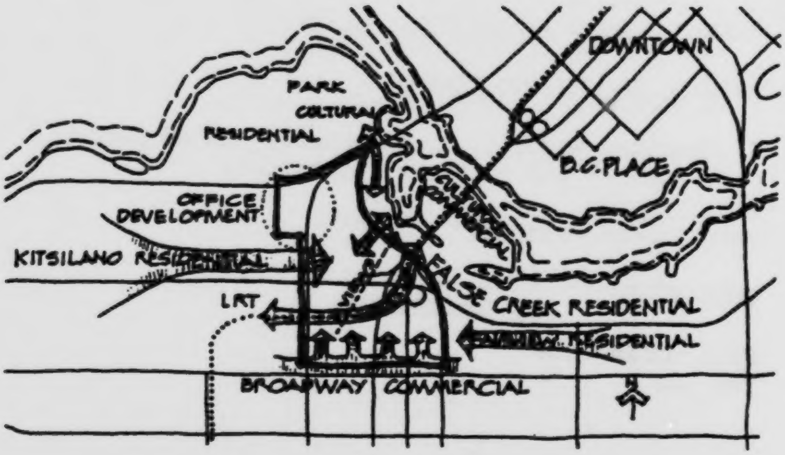
The initial phase of the study involved the gathering of base data from various City of Vancouver departments, the G.V.R.D., private sources and on-site-observations. Public input was received by mail solicitation and from a public meeting. Specific advice was provided by the sub-consultants:

- Zoltan Kuun Associates, Traffic Consultants
- Ron Rule Consultants, Landscape Architects

This information was analyzed and finally brought together in the Concept Plan. The work on the study was undertaken during 1982.

TWGG CONSULTANTS

K.G. Terriss
J.Y. Wai
J.F. Gilmour
A.B. Green


DOWNTOWN
PARK
CULTURAL
RESIDENTIAL
B.C.PLACE
OFFICE DEVELOPMENT
CULTURAL COMMERCIAL
KITSILANO RESIDENTIAL
FALSE CREEK RESIDENTIAL
LRT
RESIDENTIAL
BROADWAY COMMERCIAL
N

ACKNOWLEDGEMENTS

The study team would like to acknowledge the assistance, guidance and critical reviews provided by the following people and organizations:

PLANNING DEPARTMENT

Johnny Carline, Associate Director
John Coates - liaison
Tom Nonay
Henry Leung
Len Tennant
Dave McDonald
Joe Stott

ENGINEERING DEPARTMENT

T.E. Mulder
I. Adam

ECONOMIC DEVELOPMENT OFFICE

S.E.C. Fancy
T.A. Hutton

FALSE CREEK DEVELOPMENT GROUP

Cameron Gray

BOARD OF PARKS AND RECREATION

Pieter Rutgers

VANCOUVER SCHOOL BOARD

D.A. Moir
P. Paulson

VANCOUVER CITY PLANNING COMMISSION

Hilda Symonds

GRANVILLE ISLAND TRUST

KITSILANO CHAMBER OF COMMERCE

GREATER VANCOUVER REGIONAL DISTRICT

PRIVATE GROUPS AND PERSONS

J. Kerrigan Sproule, architecture: urban design
C.F. Roberts and Partners, architects
A.H. McLaren
Mary Rawson -Planner

TWGG STAFF

Paul Morissette
Tak Lee

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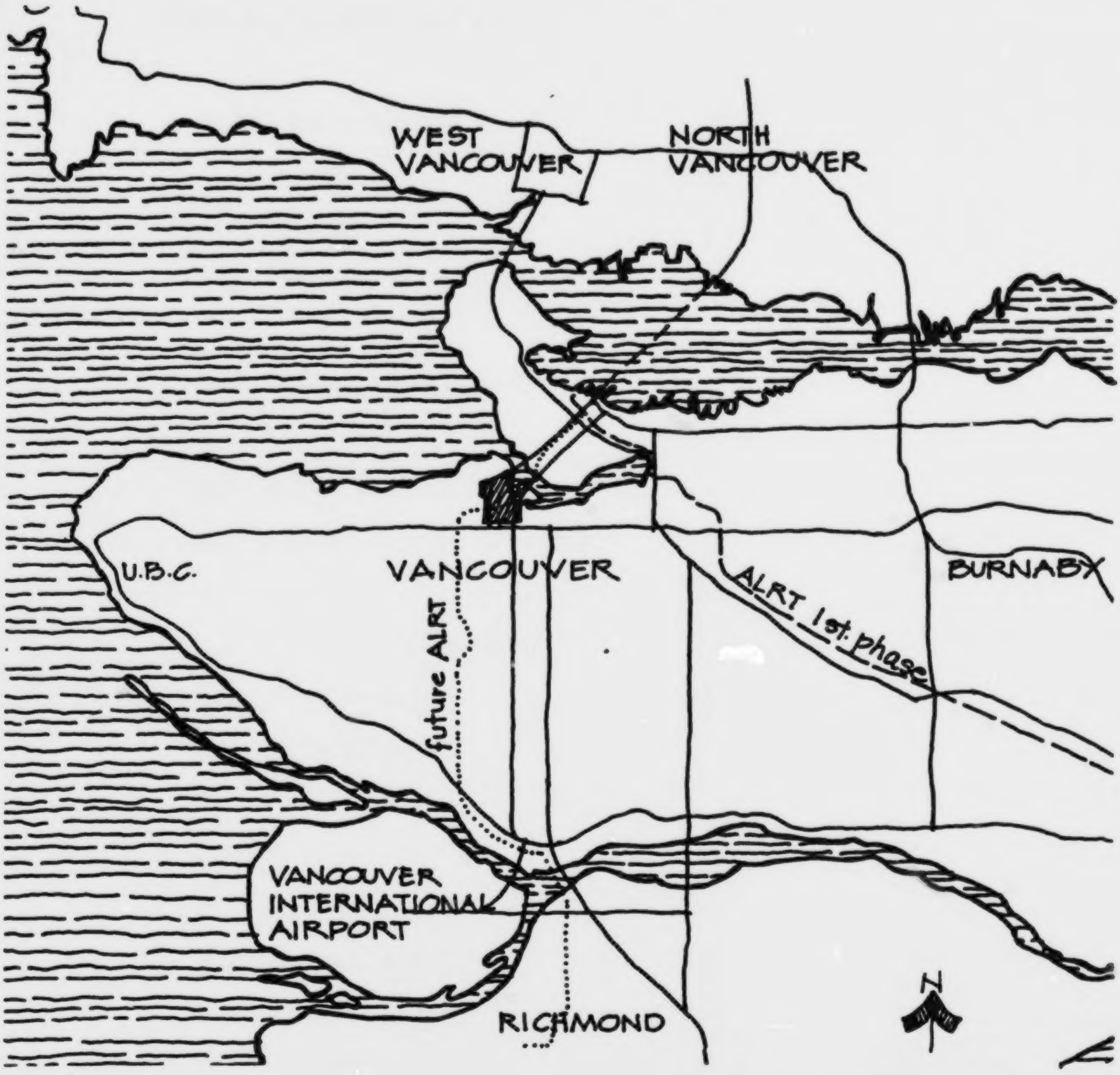
A CURRENT STATUS

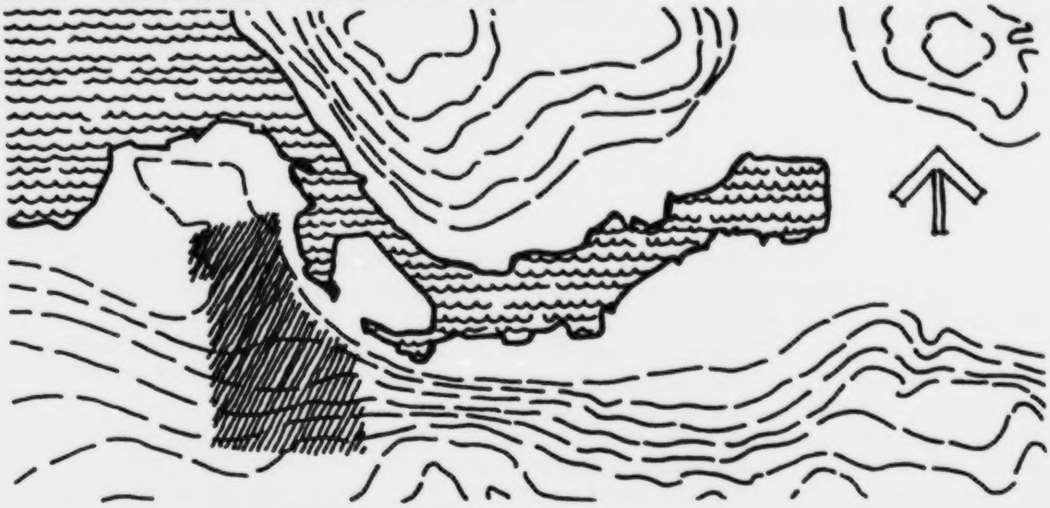
A.1 LOCATION


WEST VANCOUVER
NORTH VANCOUVER
U.B.C.
VANCOUVER
BURNABY
ALRT 1st. phase
future ALRT
VANCOUVER INTERNATIONAL AIRPORT
RICHMOND
N

REGIONAL CONTEXT

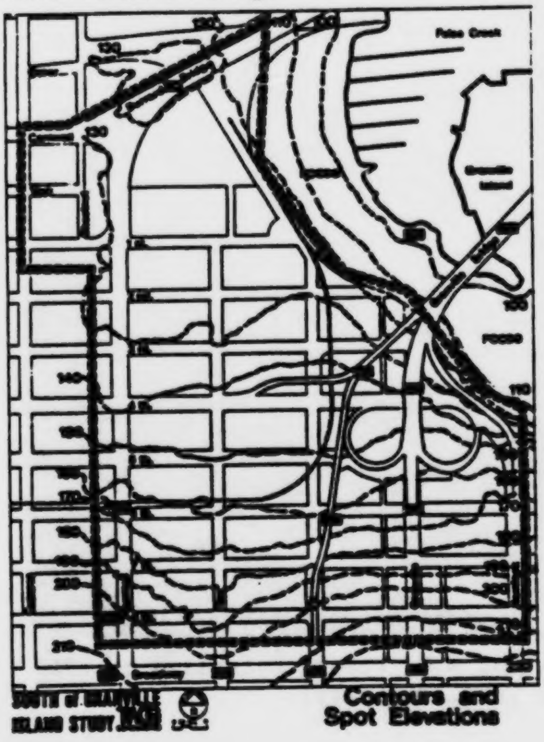
The South of Granville Island Study area lies in a central position on the edge of False Creek, one of the secondary port-industrial areas in the early development of the Vancouver region. It has inherited a pivotal location with several major circulation routes passing through or near it.

A.2 PHYSICAL CHARACTERISTICS



Topography 20 foot contour intervals

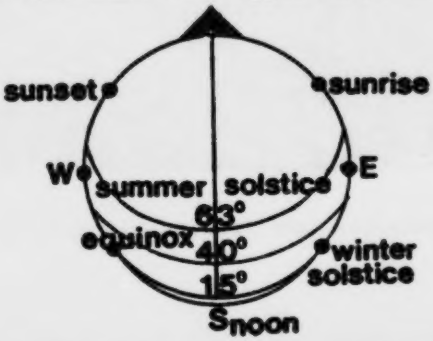
False Creek and Granville Island from Burrard Bridge


False Creek
130
120
100
140
110
170
200
210
SOUTH of GRANVILLE ISLAND STUDY AREA
Contours and Spot Elevations

The study area, comprising about 150 acres, forms the south-west edge of the False Creek Basin. The area slopes down from roughly el. 210 along Broadway to el. 160 along 6th Avenue and then is relatively flat to the edge of False Creek at el. 120. The False Creek seawall is assumed to be el 100. While not technically part of the land form, the approaches to the bridges, both as embankments and the raised approach ramps, are large enough to be significant landscape elements.

Soil conditions south of 6th Avenue are typical of the Burrard Peninsula, that is relatively good for building foundations. The flatter area, north of 6th Avenue, is a result of both the outwash from the slopes and building up by the sea. A combination of a relatively high water table and some loose soils can produce some difficulty in maintaining excavations. However, this does not present a serious impediment to normal building as bearing capacity is adequate.

Since the slope is down to the north there is a slight overshadowing problem between Broadway and 6th Avenue. However that same factor produces excellent view opportunities to the north.


sunset
sunrise
W
E
summer solstice
63°
equinox
40°
winter solstice
15°
S noon

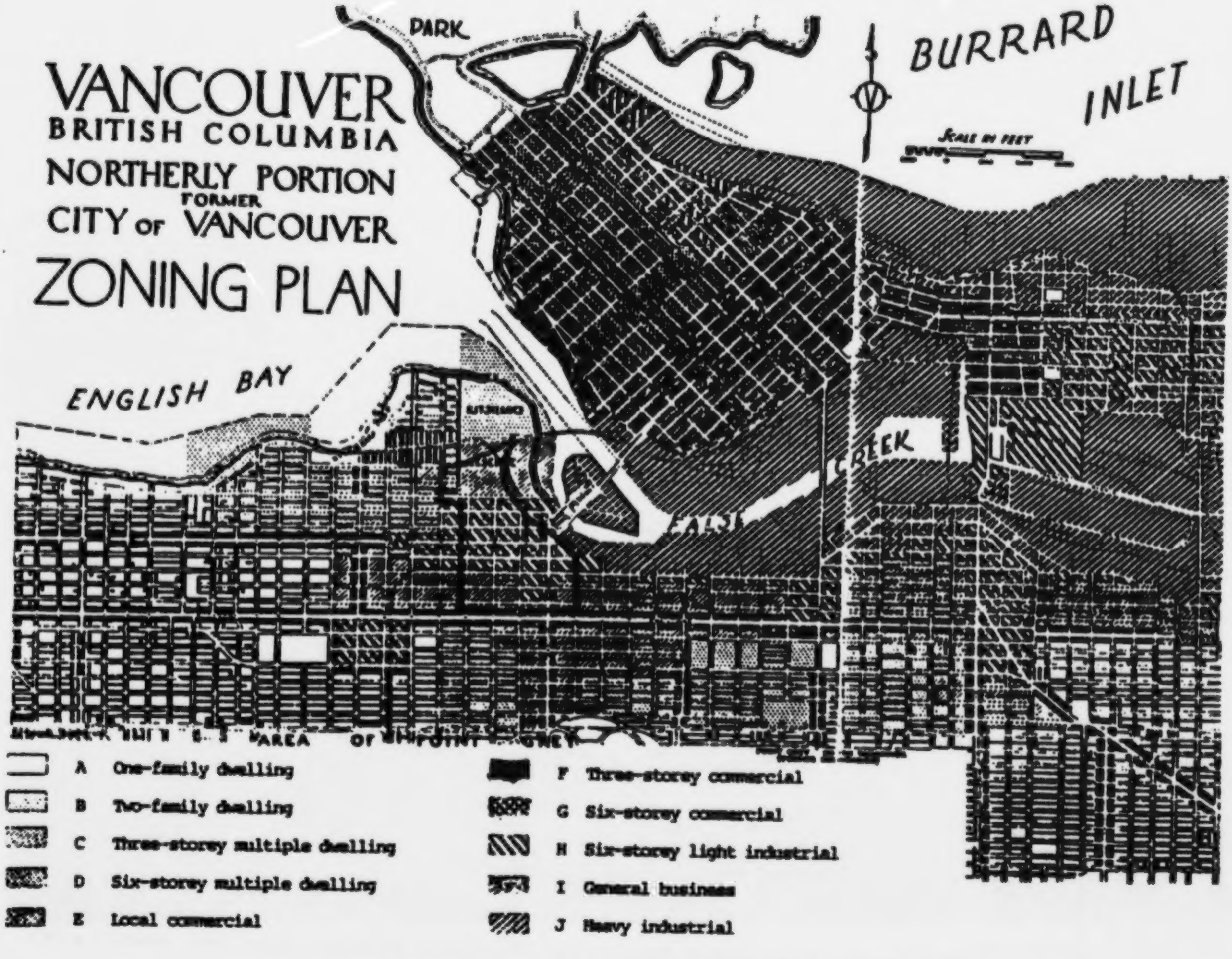
A.3 HISTORICAL DEVELOPMENT

The study area developed around the turn of the century after the Kitsilano trestle was built bringing first rail service and later street cars across False Creek. The industries along the Creek were largely saw mills and boat works. Residential areas began to grow from 1st to 8th Avenues prior to the First World War. Alexandra House located at 7th and Pine was established prior to 1900 as a hospital at a time when the area was still undeveloped enough that bears were a problem. The opening of the Granville Street Bridge in 1912 generated the growth of Old Shaughnessy and the shopping area south to 16th Avenue.

Study Area looking N.W. toward Kitsilano c. 1910
(942 Vancouver Public Library)

LIGHT INDUSTRIAL

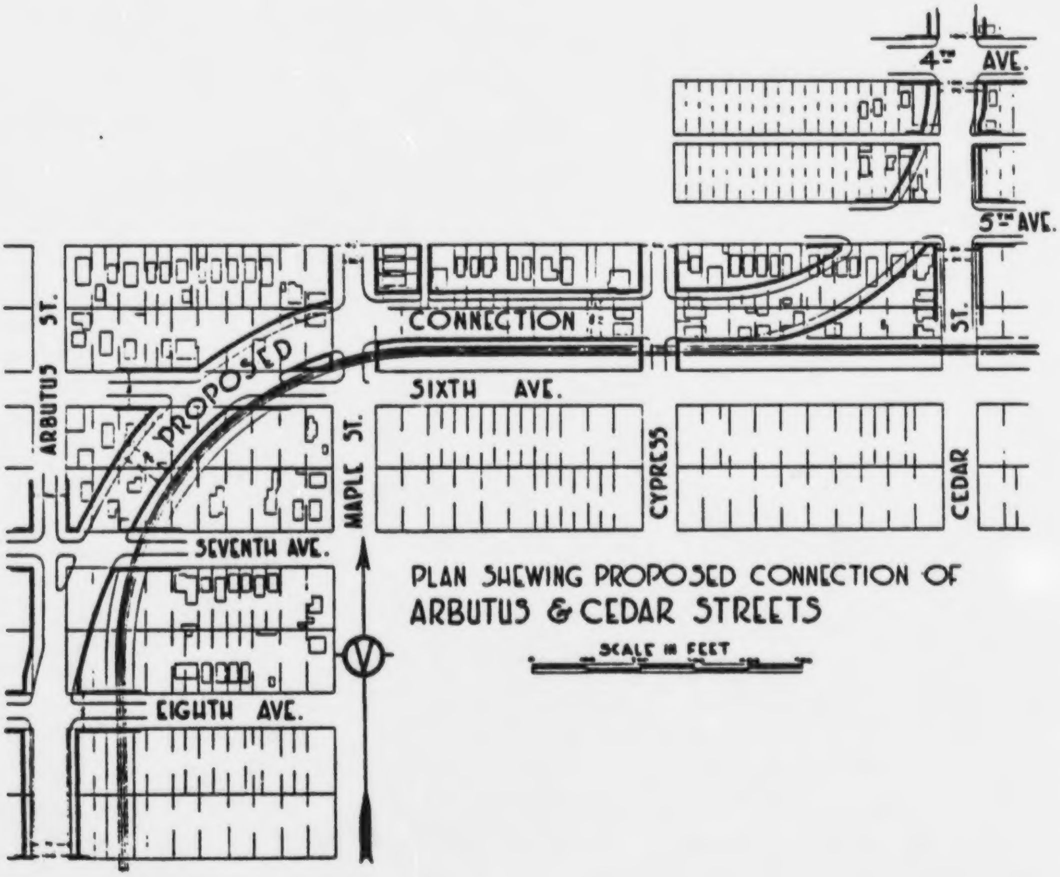
In the Harland Bartholomew Plan of 1928, from 1st Avenue to 6th Avenue was set as a six-storey light industrial zone. This area was by then largely residential but being level, adjacent to False Creek, and served by railway it made sense as industrial land. South of 6th Avenue was zoned three storey multiple dwelling; and Broadway was zoned three storey commercial. Interestingly, the Vanier Park area, then the unused Kitsilano Indian Reserve, was indicated as a potential major park area.


VANCOUVER
BRITISH COLUMBIA
NORTHERLY PORTION
FORMER
CITY OF VANCOUVER
ZONING PLAN
PARK
BURRARD
INLET
SCALE IN FEET
ENGLISH BAY
FALSE CREEK
AREA OF POINT GREY
A One-family dwelling
B Two-family dwelling
C Three-storey multiple dwelling
D Six-storey multiple dwelling
E Local commercial
F Three-storey commercial
G Six-storey commercial
H Six-storey light industrial
I General business
J Heavy industrial

1930 Zoning Plan (partial) Harland Bartholomew and Associates

BURRARD THOROUGHFARE 1932

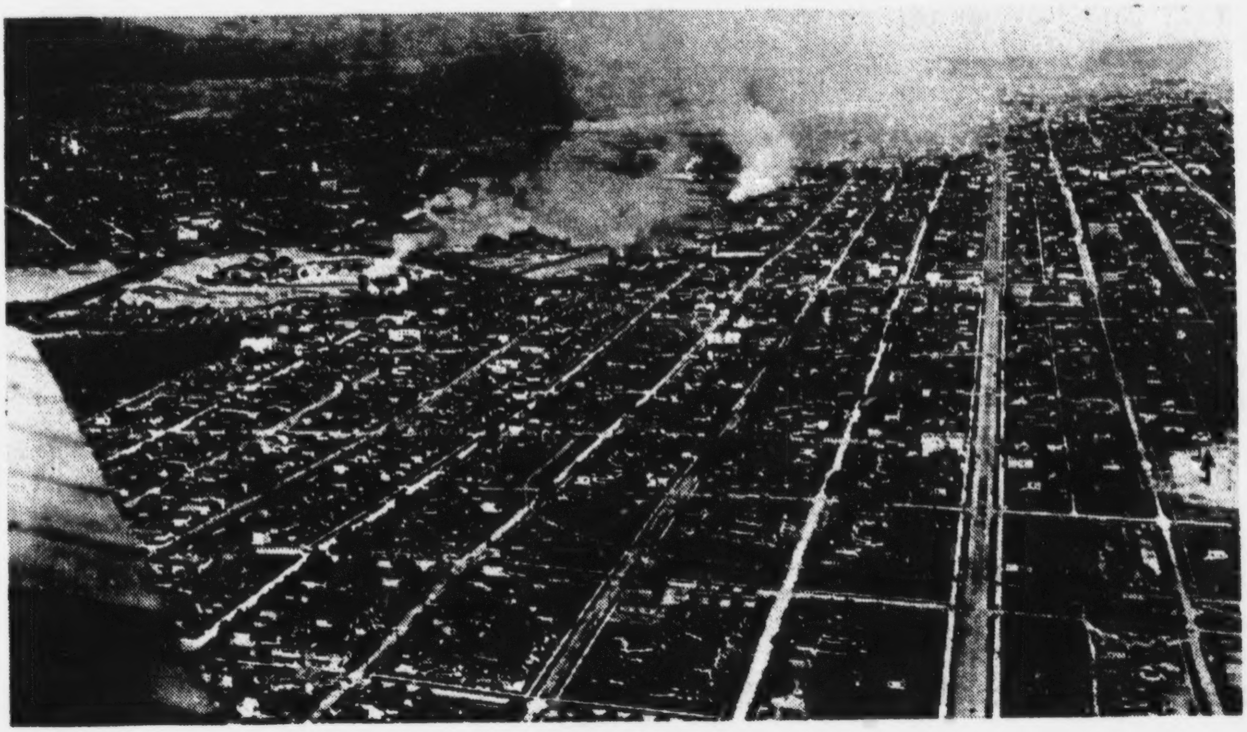
With the growth and annexation of the Point Grey area, pressure developed for a major link to the downtown peninsula. This culminated in the construction of the Burrard Bridge in 1932. Although it was a major thoroughfare through the downtown peninsula, across the bridge and up Burrard Street (formerly Cedar Street): it never did develop as a major traffic link south of 16th Avenue.


4TH AVE.
5TH AVE.
ARBUTUS ST.
CONNECTION
PROPOSED
SIXTH AVE.
MAPLE ST.
CYPRESS
CEDAR
ST.
SEVENTH AVE.
EIGHTH AVE.
PLAN SHEWING PROPOSED CONNECTION OF
ARBUTUS & CEDAR STREETS
SCALE IN FEET

1930 Arbutus Connector Proposal Harland Bartholomew and Associates

GRANVILLE STREET AND FALSE CREEK'S EDGE

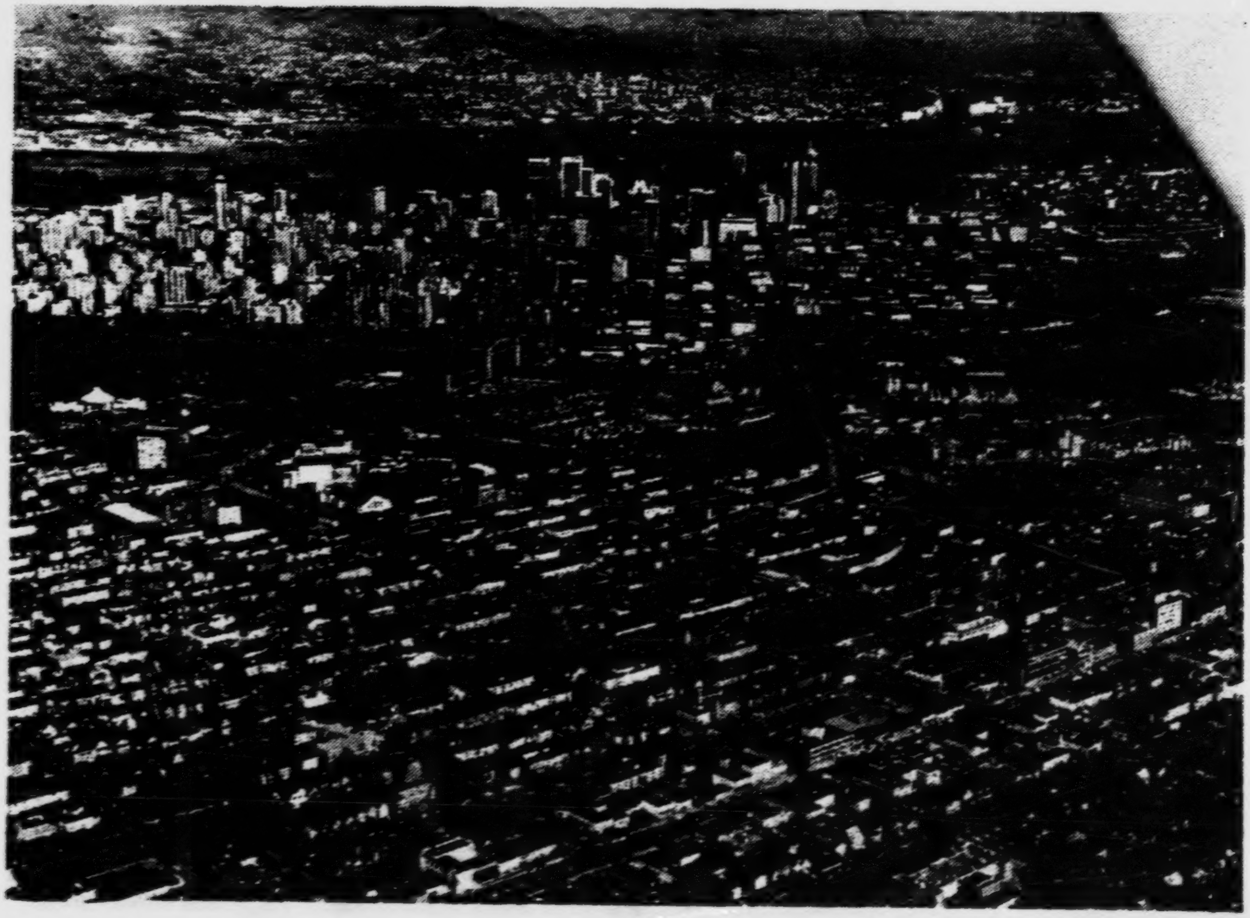
As early as 1914 Granville Island was begun on shallow lands in False Creek as an industrial center. In that era the South of Granville Island area was the home of much of Vancouver's Sikh population, living there because of their association with the lumber industry. The residents were served by Alexandra Neighbourhood House, its unofficial community center. The South Granville shopping area strengthened and contained the City's major sport center, Capilano Stadium, at 6th Avenue and Granville. During the 1930's, the study area had settled into an essentially built-up area with modest houses, a school, churches, Kitsilano Beach and Park and a band of industry along the flats. The area was crossed with street car lines heading out to Point Grey, Kitsilano, Kerrisdale and Marpole and rail lines across the trestle along 6th Avenue and out to the Fraser River along the 6th Avenue-Arbutus R.O.W.



Study Area from S.W. c. 1919
(8574 Vancouver Public Library)

NEW GRANVILLE BRIDGE 1954

A major change in the area came with the construction of the Granville Street Bridge, opened in 1954. The previous bridge was a low level structure with a center swing span. It came to grade at around 3rd Avenue on its south end. The new bridge however, since it was high enough to provide the required clearance over the shipping channel, did not meet grade on the south end until 6th Avenue at Granville and at Hemlock, and 8th Avenue at Fir Street. This leapfrogging of much of the study area left it bypassed by "progress".



Study Area from S.W. 1981
(34220 Allen Aerial Photos Ltd.)

VANCOUVER REDEVELOPMENT STUDY

Another significant change to the area was generated by the Vancouver Redevelopment Study prepared by the City of Vancouver Planning Department for the Housing Research Committee,dated December 1957. Working under the National Housing Act Section 23 the City entered into an agreement with the Provincial and Federal Governments to acquire sub-standard housing areas, redevelop them for public housing or for redevelopment to other uses and relocate the residents. The study area is very similar in boundaries to Area D of that earlier study. The housing was deemed to be some of the worst in the City especially north of 4th Avenue. A certain amount of industry and warehousing already existed largely around Pine Street between 1st Avenue and 3rd Avenue. The False Creek area immediately adjacent to the north and Granville Island were heavily industrial.

"MODEL INDUSTRIAL AREAS" 1960's

1700 Block West 2nd Avenue

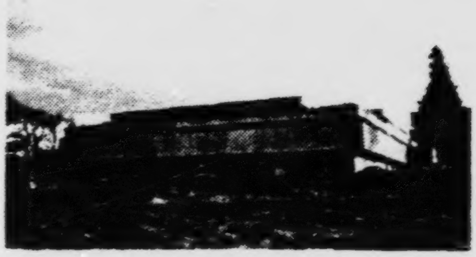
The redevelopment process went on for several years in the area between 1st and 6th Avenues into the middle 1960's during which the housing sites were sold as light industrial sites and a 'model' industrial area was erected. The grassed boulevards and street trees which now give the area some very pleasant sections were part of that process. The residents were offered accommodation in public housing at either MacLean Park, or Skeena Terrace. However, few residents took up the offer, most merely moved west across Burrard Street to other areas of older housing in as yet not redeveloped RM-3 zones. Along with this redevelopment the increasing amount of commercial south of 6th Avenue gradually reduced the population close to Alexandra House. Around 1970 the social services were located westward to Kitsilano Neighbourhood Services Centre. The site at Pine Street between 7th Avenue and 8th Avenue was sold and 'Big Pink', as it was affectionately known to the itinerant 'hippies' all across Canada, was demolished. In the early 1970's the one block site, 6th Avenue to 7th Avenue, Burrard Street to Pine Street, was cleared of its stock of older housing for an auto dealership with no relocation plan for its residents. The site is still vacant and represents the major single block for redevelopment. By the end of the 1960's the lumber industry had largely moved to the Fraser River and with it many of the Sikh families who worked in the mills. Around 1970 the Sikh Temple on 2nd Avenue just west of Burrard was sold as an apartment site.

REDEVELOPMENT OF THE SOUTHERN STUDY AREA FROM 1960

The southern part of the study area developed gradually during the 1960's and 1970's. Major new elements were the Pacific Press Building at 6th and Granville (roughly the old Capilano Stadium site); the Royal Bank at Granville and Broadway; Postal Station D at 8th Avenue and Pine Street; Seymour Medical Clinic in the 1500 Block West 8th Avenue (a move from Seymour Street at Georgia Street); the Masonic Lodge Building on 7th Avenue east of Granville Street and the Data Center on 8th Avenue at Pine Street.

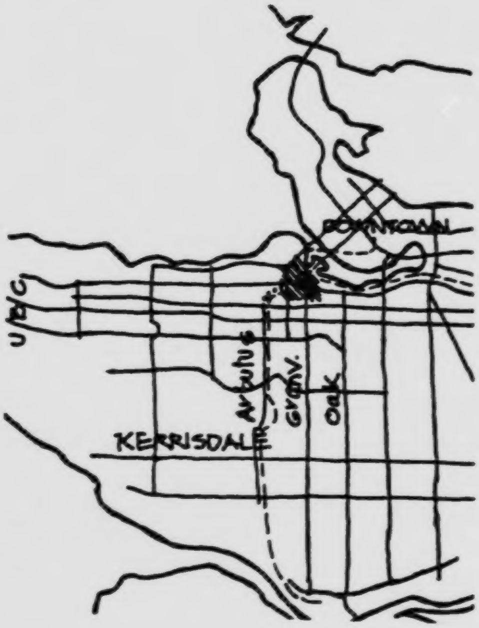
Pacific Press

7th Avenue at Granville Street looking West



Data Centre North Side

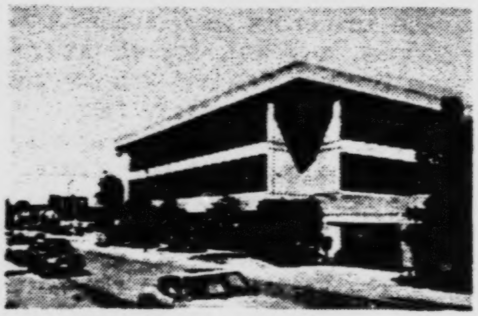
Looking West on Broadway



TRAFFIC AND TRANSIT

Traffic and transit in the area maintained a fairly steady pattern after the completion of the Granville Street Bridge with a continuing growth in volume. The problem of linkage from Shaughnessy, Kerrisdale and Dunbar into the Burrard Street Bridge Corridor raised its head around 1970 with various proposals for the Arbutus Connector. None of these came to fruition due to local Kitsilano resident protests. For various reasons Granville Street and Bridge have never reached their full potential carrying capacity. Granville Street and Broadway have increasingly become transit corridors. Interestingly, the railway lines passing through the study area have not been of great service to the industries. A proposal made in 1957 for a team track loading area around 1st Avenue at Fir Street was never developed. The major user became Molson's Brewery. Other sidings gradually fell into disuse.

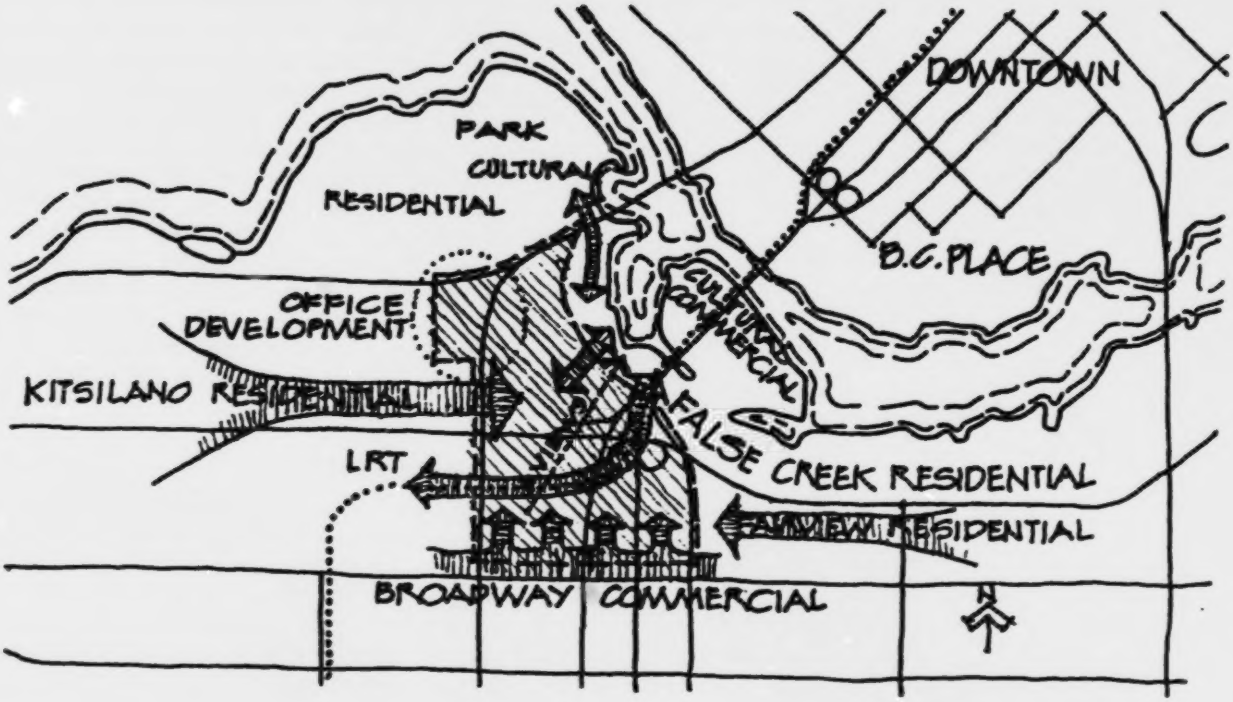
Chemetics Building


Office Building 2nd Avenue at Burrard Street

RECENT DEVELOPMENT FORCES

Certain developments in the industrial areas in recent years indicate current trends. The former Coca-Cola plant at Cornwall Street and Cypress Street, built in the 1940's when the location was suitable for a distribution centre, moved out of the City and the structure was extensively remodelled into commercial space and offices. At the corner of 2nd Avenue and Burrard Street a former trucking yard was redeveloped into a modern four storey office building. The light industrial area north of 6th Avenue never appeared to develop in strict accordance with its zoning. For instance Narod Construction and Narod Developments built and occupied for many years what was essentially office space in the 1600 Block on 2nd Avenue. Increasingly uses with a retail trade component such as Western Optical, East India Carpets, Paradise Floors, Carpet Color Centre, the Mountain Equipment Co-op, Kitsilano Marine and Windsor Lumber located on industrial sites.

Although in the late 1960's the City was still promoting 'Clean industries' for the False Creek Basin, the idea of new uses for False Creek were in the air, spurred to a large degree by imaginative work at the School of Architecture at U.B.C.


DOWNTOWN
PARK
CULTURAL
RESIDENTIAL
B.C. PLACE
OFFICE DEVELOPMENT
CULTURAL COMMERCIAL
KITSILANO RESIDENTIAL
FALSE CREEK RESIDENTIAL
LRT
FAIRVIEW RESIDENTIAL
BROADWAY COMMERCIAL
N

CURRENT PRESSURES

The first steps in realizing this potential were taken at the City's initiative with the development of Vanier Park in Kitsilano and residential development on the south shore west of Cambie. Concurrently, private investors were transforming the Fairview Slopes, a steep, former underused industrial area between 6th and 8th Avenues east of the study area, into a largely residential area. This was followed by commercial and marina developments on both the north and south shores, and the federally-sponsored conversion of industrial Granville Island to a mixed business, commercial, and recreational area. Now with the purchase of the rail yards on the north shore, the provincial government is proceeding with its plans to develop a stadium and large-scale commercial, residential, and cultural facilities (B.C. Place), and to host a world-class exposition in 1986 (Expo '86).

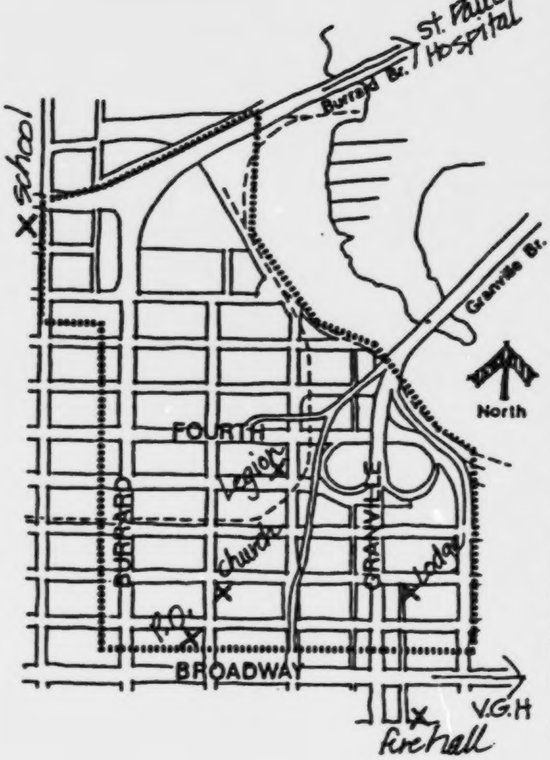
A.4 CITY SERVICES

WATER SUPPLY

A large water main feeding the Queen Elizabeth Park Reservoir crosses the mouth of False Creek and runs up the west side of the study area. Consequently, water supply is not a critical issue for any reasonable future use.

SANITARY AND STORM SEWER

The present sewers are in 'fair' to 'poor' condition and are generally undersized for the present development. They are to be replaced starting in 1985 and should be able to service almost any proposed development by the year 2000.



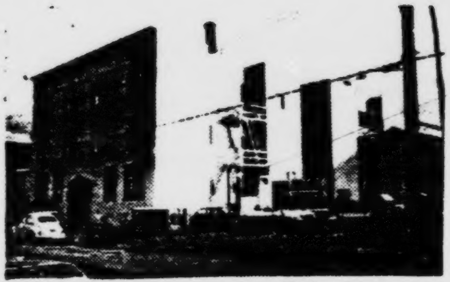
COMMUNITY SERVICES

As a consequence of the low neighbourhood population there are no schools or neighbourhood facilities. There is one church on 7th Avenue and Pine Street but it does not serve this area specifically. Similarly the Masonic Lodge in the 1500 block on 7th Avenue serves a wider community. Postal Station D on 8th Avenue at Pine Street serves the local business community. The closest firehall is on 10th Avenue just west of Granville Street. The area is about equally well served by the Vancouver General or St. Paul's Hospitals. There are no locally based social organizations except for those which lap over from major adjacent areas such as the Kitsilano Chamber of Commerce and the South Granville Merchants Association. The Canadian Legion at 5th Avenue and Fir Street offers the only 'social center' in the study area but beyond being an amenity to those working nearby it does not appear to have a specific relevance to the study area.

RECREATIONAL FACILITIES

There are no recreational facilities within the study area. However along the northern edges there are casual facilities extending from Kitsilano Beach to False Creek. The nearest formal playing fields are at Connaught Park, 10th Avenue at Vine Street or False Creek School; almost one mile away. Indoor facilities are available at a small scale at the various elementary schools and the False Creek Community Center. Henry Hudson School is immediately adjacent to the N.W. corner of the study area. Major indoor facilities are available about one mile away at the Kitsilano Community Center. The Aquatic Center is about 3/4 mile away across Burrard Bridge.

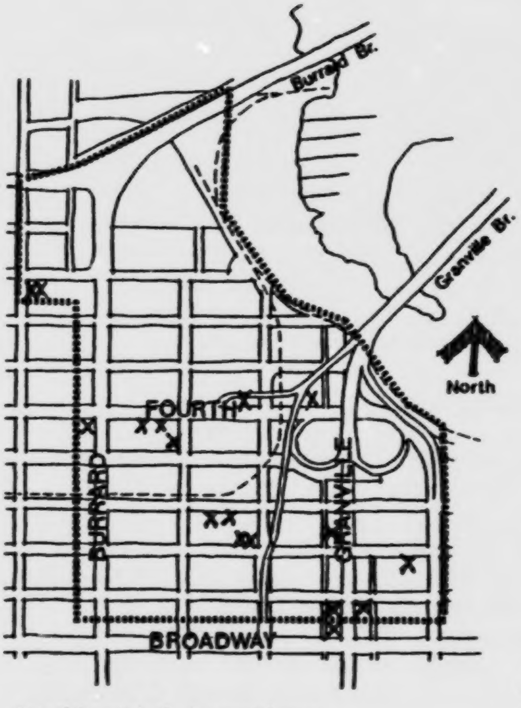
A.5 RESIDENT POPULATION



Older Apartment on 6th Avenue

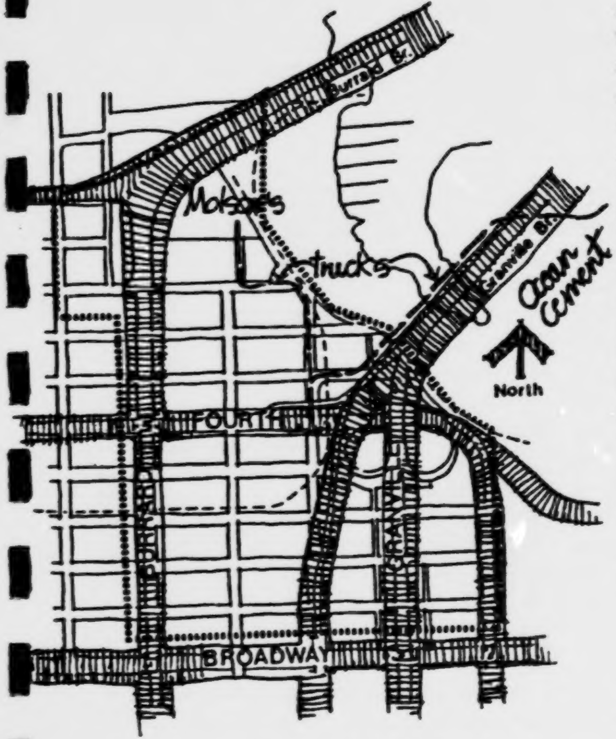
Presently there are relatively few people living in the study area. Of the total of about 220 residents about 60 live in older houses presumably being held for redevelopment, roughly 100 live in older apartments which also appear close to redevelopment and roughly 40 live in apartments along Granville Street above commercial space. There are four new apartment units on Granville Street and one on 4th Avenue at Burrard Street, all above retail spaces. There are about six units currently being completed on 1st Avenue at Cypress Street in a mixed use development. If the current CD proposal on 1st Avenue at Chestnut is completed it would add about 130 dwelling units to the stock. However, these last two residential projects in many ways belong to the Kitsilano residential area.

The social profile of the area it would appear leans toward the young adult group, perhaps with some older residents in the better older apartments. There do not appear to be any school-age children living in the area.



Residential locations

A.6 CIRCULATION



Vehicular Traffic Volume

Rail r.o.w. east of Fir Street

CIRCULATION

VEHICULAR TRAFFIC

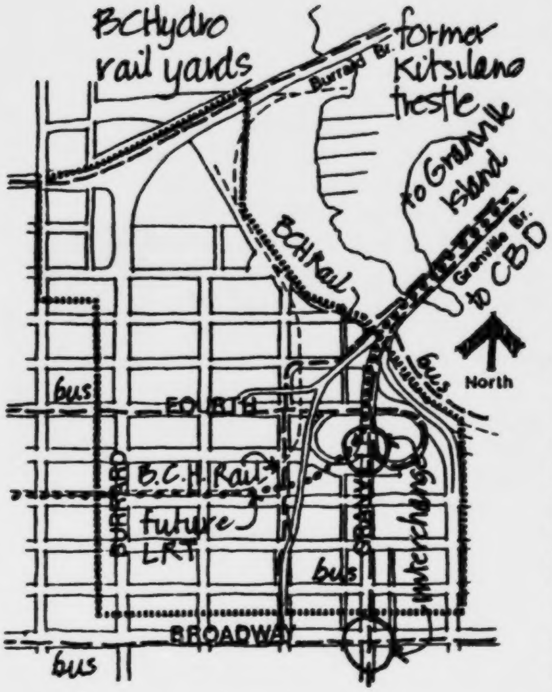
The vehicular traffic system is characterized by a large variation in volume between the through routes crossing the study area and the internal streets. The two bridges carry about 60,000 vehicles per week day, 4th Avenue about 25,000 and internal streets about 2,000. The streets serving as access to Granville Island and the False Creek developments, 1st, 2nd and 3rd Avenues, have about a 25% increase in volume over the normal for the land use. The major congestion occurs in the 4 p.m. to 6 p.m. period for left turns by south bound traffic onto 4th Avenue from Burrard Street and Fir Street. Truck traffic is significant north of 6th Avenue especially the semi-trailers serving Molson's Brewery and the concrete ready-mix trucks from the Ocean Cement plant on Granville Island. The only problems created by these trucks are the operational controls required on intersections for manoeuvering.

PARKING

Parking is perceived as a problem by users of the study area. However, this is largely created by the use of the streets for all-day parking which is possible because of lack of enforcement of time restrictions. The changing use from low occupant-load industries and warehousing north of 7th Avenue to retail, service and office uses; mostly without adequate on-site parking; has compounded this deficiency. Granville Island parking overflows into the study area on weekdays and to a greater extent on weekends. At that time businesses are closed and that overflow can be accommodated.

TRANSIT

The study area is relatively well-served by transit currently and should benefit further from the proposed LRT route passing through.


BCHydro rail yards
former Kitsilano trestle
Burrard Br.
to Granville Island
BCH Rail
Granville Br.
to CBD
North
bus
FOURTH
BURRARD
B.C.H Rail
future LRT
GRANVILLE
interchange
bus
bus
BROADWAY
bus

Transit and Rail

RAIL

The B.C. Hydro Rail traversing the study area has only one main customer, Molson's Brewery, and it's two short trains per day cause relatively little disruption. Although it has little direct benefit to most of the area, other city-wide issues appear to require that it remain in service for the forseeable future.

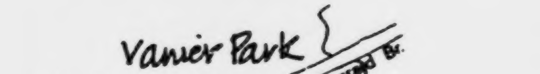
PEDESTRIAN

There is relatively little significant pedestrian movement within the study area. There are however serveral important pedestrian areas adjacent. The False Creek area and Granville Island generate pedestrian flows which filter through the streets north of 4th Avenue, especially on weekends. The pedestrian shopping movement west of Burrard on 4th Avenue has a modest impact into the study area. The pedestrian shopping and transit connection facilities on Broadway and on Granville Street have some effect north to 6th Avenue and into the Granville Island access routes around the bridge cloverleafs.

There is a growing pedestrian movement under the Burrard Bridge between the False Creek and Granville Island facilities and Vanier Park and Kitsilano. This is quite informal at the present but a long-standing proposal by the city would see this formalized.

CAPACITY

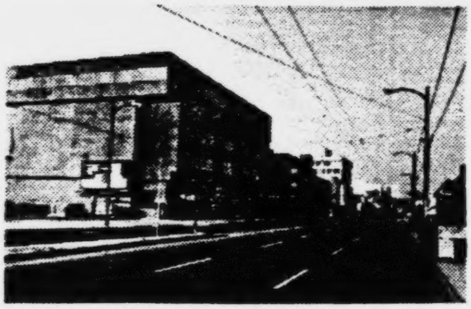
The present street system appears capable of handling any forseeable circulation demands that changing land-use could entail. Some improved intersections and the widening of certain currently narrow road pavements would be of benefit.


Vanier Park
Burrard Br.
to Granville Isl.
Seawall
Granville Br.
North
retail
FOURTH
BURRARD
GRANVILLE
BROADWAY
retail

Pedestrian Routes

A.7 LAND USE

1700 Block West 3rd Avenue



Looking East on Broadway from Burrard Street

ZONING

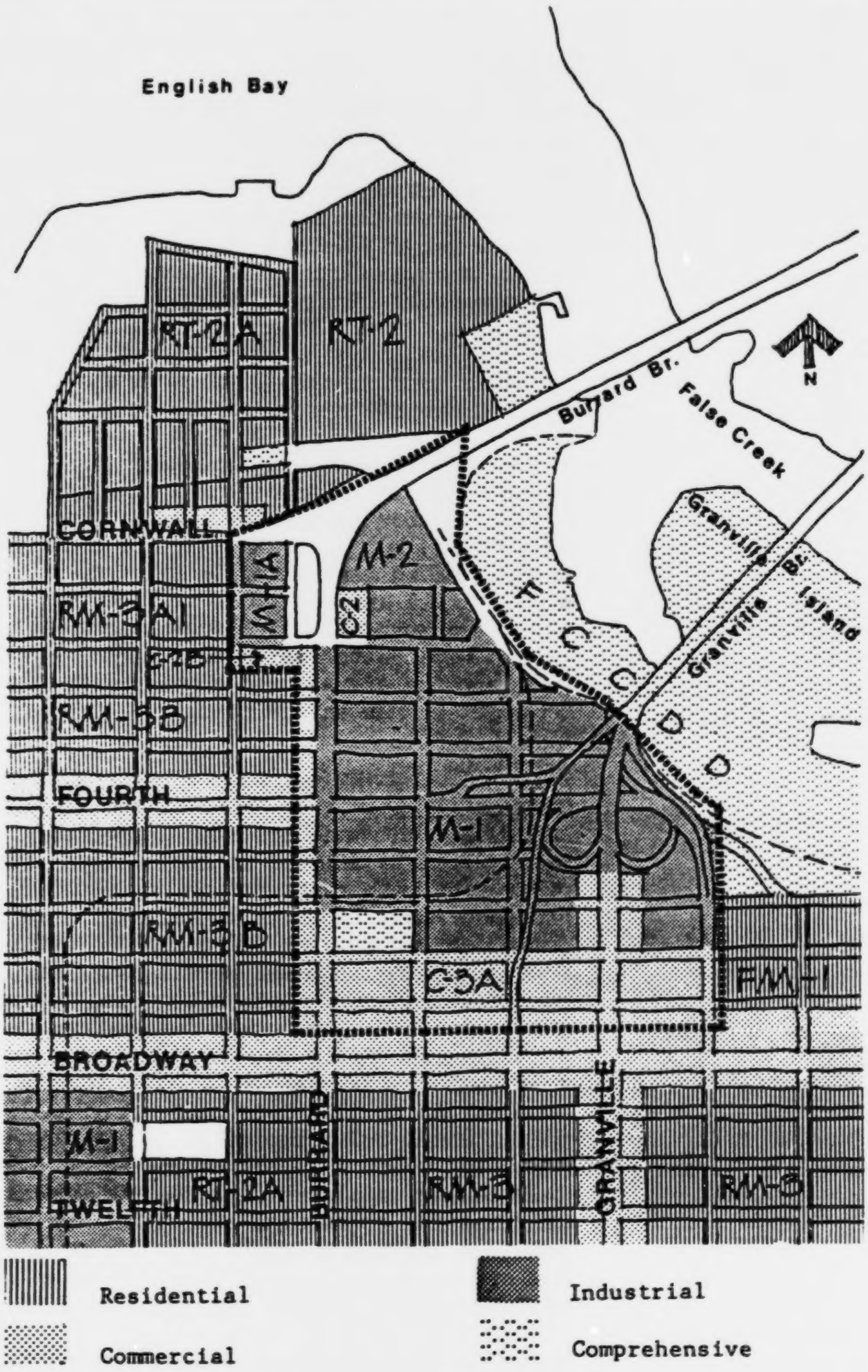
Existing zoning of the study area generally varies with the topography. M-1 and M-2 industrial zones occupy the flatter areas north of 7th Avenue and C-3A commercial zone occupies the slopes from 7th Avenue south. M-1 and M-2 zoning are designated to accomodate industrial and other uses that are generally incompatible with residential land uses. The C-3A zoning is a result of the overlap of the study area with the West Broadway office-commercial area and the South Granville retail strip.

M-1 zoning is generally intended to accomodate light industry and support industries for inner city higher uses. M-2 is similar, but allows a range of secondary manufacturing restricted in M-1. Both allow office and retailing as conditional uses, and both are considered generally incompatible with residential uses. Developments are allowed a maximum height of 100 feet and an FSR of 5.00.

C-3A zoning generally provides for office-commercial activities, specialized services and some light manufacturing enterprises. Residential is allowed in conjunction with other uses with restrictions on ground floor frontage. Developments are allowed a maximum height of 30 feet and an FSR of 1.00. However the Development Permit Board may permit increases in both categories taking into account various urban design considerations. The FSR is commonly permitted to be increased to its maximum of 3.0. Within the broader zoning districts there is a small parcel zoned C-2 occupied by the Seaforth Armouries which also allows an FSR of 3.00. C-2B zoning, on 1st at Cypress and on 4th Avenue, provides for commercial activities and personal services serving a larger neighbourhood with the option of residential uses up to an FSR of 1.50 out of a total permitted of 2.50.

There is also one parcel zoned for comprehensive development, which is the full block bounded by Burrard Street, 7th Avenue, Pine Street, and 8th Avenue.

Refer to Map 1 p. 18.


English Bay
RT-2A
RT-2
Burrard Br.
False Creek
N
Granville Br.
Granville Island
CORNWALL
M-1A
M-2
C-2
RM-3A
RM-3B
FOURTH
M-1
RM-3B
C-3A
RM-1
BROADWAY
M-1
TWELFTH
RT-2A
BURRARD
RM-3
GRANVILLE
RM-3
Residential
Industrial
Commercial
Comprehensive

This map records the zoning from the Zoning By-law over the study area and adjacent areas.

OFFICIAL ZONING

MAP 1

OBSERVED LAND USE, MAP 2, p.20.

Actual land uses in the study area represent a distinct underuse of the zoning allowances as well as variation of the allowable uses.

M-1 INDUSTRIAL ZONE:

Land use surveys in the M-1 zone indicate the greater proportion of the area is occupied by transient uses (warehousing, parking, and vacant lots). There are also several intrusions of retail and office uses. Under the zoning by-law, retail and office functions are normally considered as conditional uses only, in conjunction with or as support to industrial activities. Existing building stock is far below the maximum allowed in building height and FSR.

M-2 INDUSTRIAL ZONE:

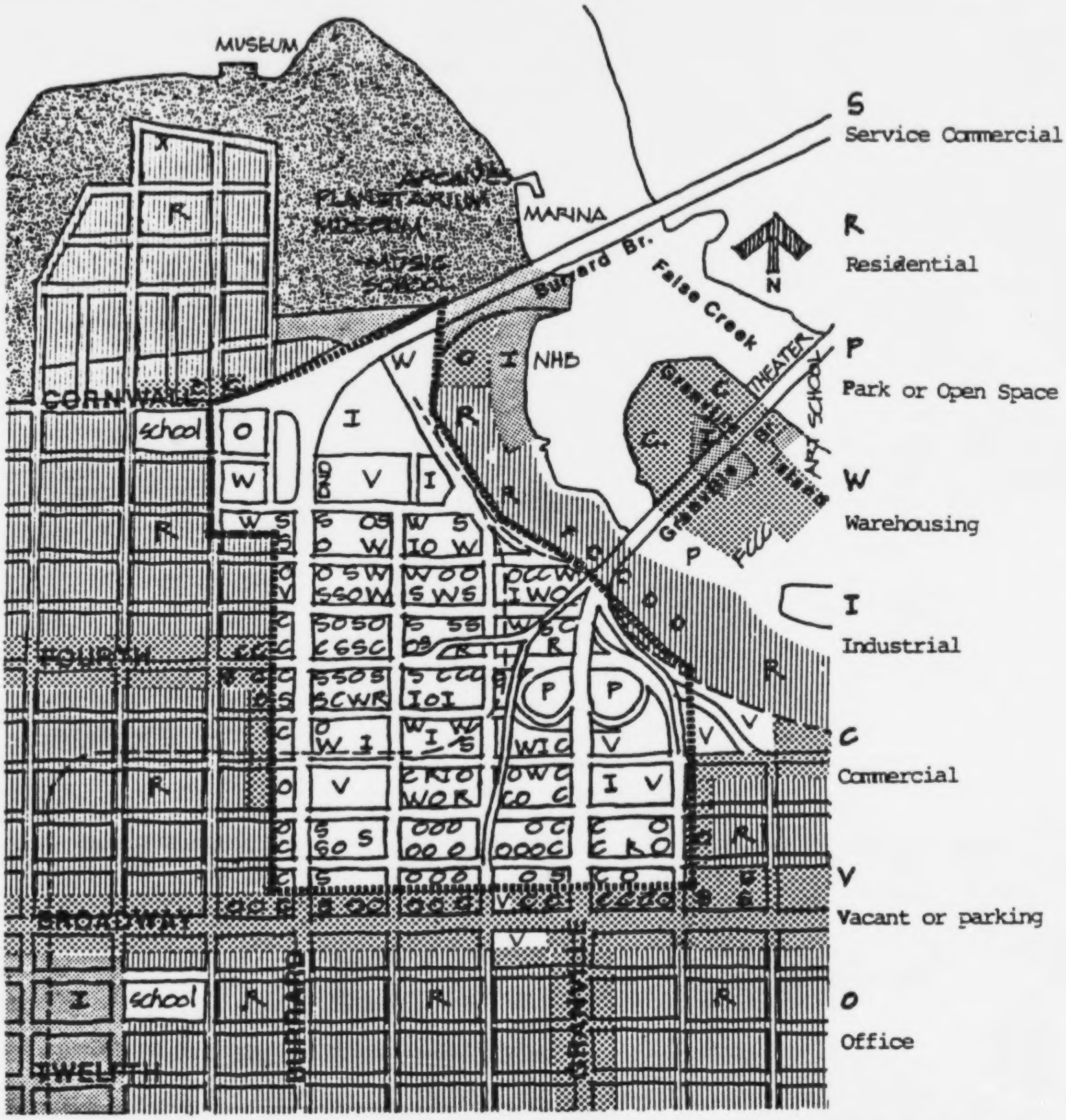
Land uses in the M-2 zone are generally consistent with zoning intent, although the recent developments in False Creek (FCCDD) place them adjacent to residential land uses. The comparatively small M-2 area is occupied by Molson's Brewery, Osborne Propellor, and the open site behind Seaforth Armouries. Again, the area is generally underdeveloped in terms of allowable maximums.

C-3A COMMERCIAL ZONE:

The C-3A zone has developed most consistently with the intent of the zoning by-law. Office activities represent the primary land use. The possibilities for light industrial and residential uses have not been exploited. The FSR of 1.00 and the maximum height of 30 feet, which can be exempted by the Development Permit Board, have frequently been exceeded although not to the extent that buildings along West Broadway have done so.

C-2B COMMERCIAL ZONE:

This is a very small portion of the study area and has only recently been developed under this type of zoning.


MUSEUM
PLANETARIUM MUSEUM
MUSIC SCHOOL
MARINA
Burrard Br.
False Creek
N
NHB
CORNWALL
school
THEATER
ART SCHOOL
Granville Br.
Fill
FOURTH
BROADWAY
BURRARD
GRANVILLE
school
TWELFTH
S
Service Commercial
R
Residential
P
Park or Open Space
W
Warehousing
I
Industrial
C
Commercial
V
Vacant or parking
O
Office

This map records on-site observations of the actual uses as differentiated from the zoning designations. It extends beyond the study area in order to give a realistic view of the adjacent uses. Some observations which seem pertinent are:

1. much of the industrially zoned land is used for warehouse or storage purposes (W)
2. there are several intrusions of office-commercial (O) and retail (C) into the industrial zone
3. most of the service-commercial uses (S) are auto-oriented such as sales, repair and service stations.
4. the commercial zone (largely C-3A) is fairly consistent in office use often with retail at street level

OBSERVED LAND USE MAP 2

INDUSTRIAL

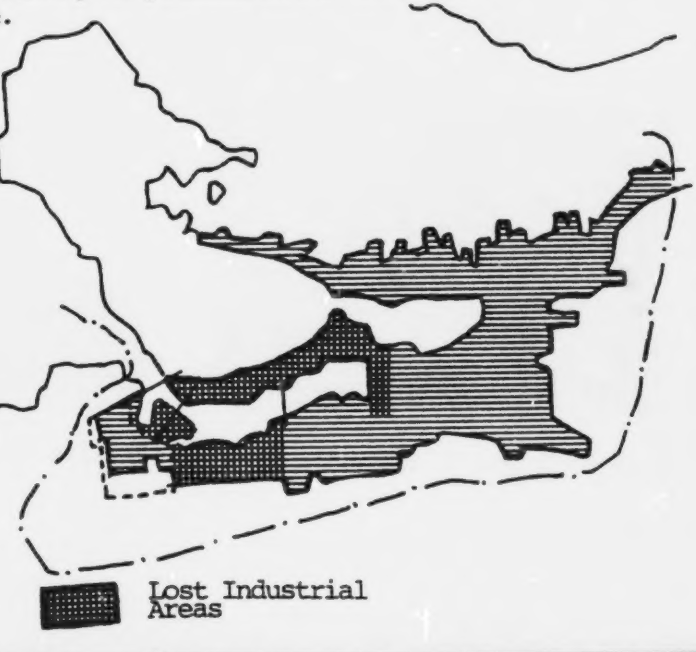
Industrial land uses are essentially those involving the physical processing, storage and handling of goods. There are many ways of attempting to categorize industrial activities, such as the traditional definition of "heavy" versus "light" industry, or the classification into categories such as "manufacturing", "warehousing", "wholesaling", etc. However, for purposes of analysing industrial activity within the study area the most useful technique is to do so in terms of the "role" and/or "market area" served by the area's industries within the context of the overall city and regional economy.

INDUSTRIAL USES IN THE FALSE CREEK BASIN

In the past, the entire False Creek basin was an important industrial area capitalizing on its combination of waterfront and rail access, with shipyards, sawmills, foundries and numerous other enterprises distributing their products to regional and overseas markets. The industrial zone within the study area was an integral part of this larger industrial complex.

With the evolution of the False Creek Comprehensive Development District, Granville Island, and B.C. Place, most of this industrial activity has moved away, leaving the industrially-zoned portion of the study area, and the lands from Cambie to Main to Terminal Avenue, as the only areas around False Creek remaining in predominantly industrial use.

CORE AREA INDUSTRIAL AREAS

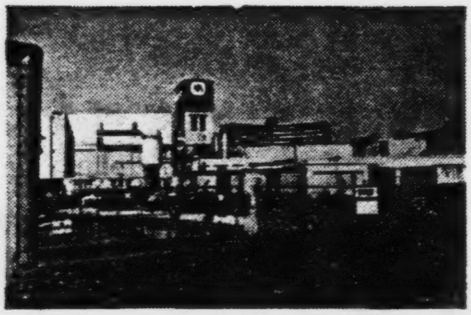


MIGRATION

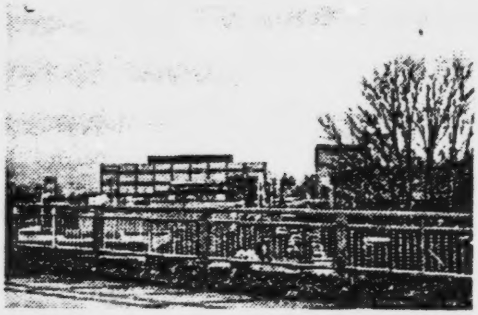
The migration of industrial activity from central-city to peripheral locations within the metropolitan areas is a commonplace phenomenon throughout North America, in response to the disadvantages of central-area locations, such as small parcel-size, traffic congestion and high land values. Although the land north of 6th Avenue still retains many industrial uses and is still covered by industrial zoning, it too has been experiencing the outward migration of industry. Within the past two years the area has witnessed the departure of such region-serving activities as the Coca-Cola bottling plant, Chapman Industries (suppliers of heavy equipment to the forest industry), Bekins Moving and Storage Warehouse, and the Bapco Paint distibution warehouse.

REMAINING INDUSTRIES

Except for a few small enterprises such as a millwork firm and a popcorn distributor, the only substantial region-serving industries remaining in the area are Molson's Brewery and Pacific Press. These are both substantial, labour-intensive enterprises, with heavy capital investments in buildings and machinery, and with well-maintained buildings and grounds; and accordingly will remain as fixed elements within the study area throughout the foreseeable future. The other industrial enterprises are generally much smaller in size and in capital investment.



Rear of Molson's Brewery



Pacific Press

TABLE I

Block No.	Number of parcels in each land-use category									
	Storage & Warehousing	Other Industry	Office	Retail & Service Comm'l	Automotive	Parking	Residential	Vacant	Right of Way	Total
218	7		1			1		1		10
219	12	5						4		21
228	10	1	2	2	1			2		18
229	12		2	1	1			2		18
230	7	1		2				2	4	16
238	7		2	6	1					16
239	8		3	1		1		1		14
240	4				2		1	4	7	18
248	6			3	3		2			14
249	7	2		7		1		2		19
268	3	1	2			1		4		11
269	2	3	2							7
270	4	2	1	4				1	4	16
289	7	1	5			2	7	1		23
290	4		5			1		6	3	19
291		1								1
Total	100	17	25	26	10	7	8	30	18	241
%age Total	42	7	10	11	4	3	3	12	8	100

Arranged in declining order of importance:

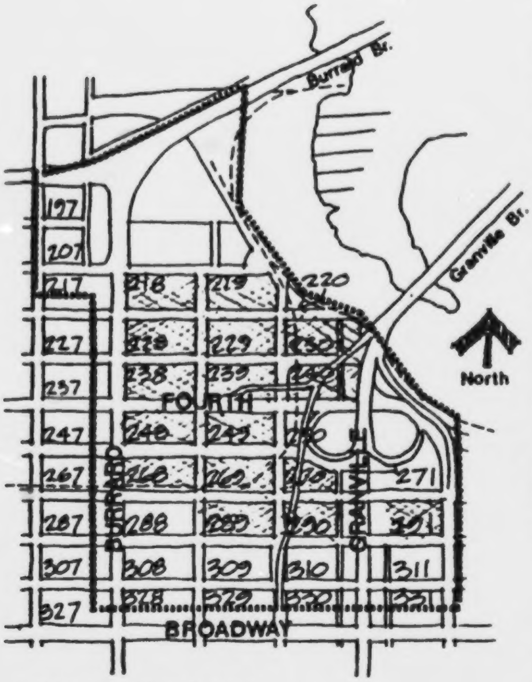
1.	Storage and warehousing	42%
2.	Vacant	12%
3.	Retail and Service Commercial	11%
4.	Office	10%
5.	Right of Way	8%
6.	Other Industry (Mfg., Processing)	7%
7.	Automotive	4%
8.	Residential	3%
9.	Parking	3%

TABLE 2

Block No.	Net Site Area (square feet) for each Land Use Category within M-1 Zoned Land									
	Storage & Warehousing	Other Indust.	Office	Retail & Service Comm'l	Automotive	Parking	Residential	Vacant	Right Of Way	Total
218	85,960		19,824			9,000		3,000		117,784
219	86,744	23,800						8,900	2,065	121,509
228	62,650	17,850	12,000	10,974	8,160			6,000		117,634
229	83,583		15,000	3,000	12,000			6,000		119,583
230	59,192	10,335		17,700					18,277	105,504
238	45,775		20,425	42,809	5,160					114,169
239	78,220		21,980			6,000	5,000	3,000		112,200
240	30,181				15,120		2,825	19,865	40,184	108,175
248	27,650			18,275	55,220		5,600			106,745
249	13,457	48,825		37,172		3,760		6,593		109,807
268	24,200		29,966			11,160	6,000	12,000	28,594	111,920
269	6,300		7,000		15,500			60,991	30,209	120,000
270	22,935	19,396		8,000				11,952		62,283
282	39,600	6,000	27,000			11,400	28,968	6,000		118,968
290	20,982		6,708	10,950		2,700		27,347	5,431	74,118
231		88,000								88,000
Total	687,429	214,206	159,963	148,880	111,160	44,020	46,393	171,648	124,760	1,708,399
%age Total	40.2%	12.5%	9.4%	8.7%	6.5%	2.6%	2.7%	10.1%	7.3%	100%

Arranged in declining order of importance:

1.	Storage and warehousing	41.0%
2.	Other Industry	15.0%
3.	Office	9.7%
4.	Retail and Service Commercial	8.7%
5.	Right of Way	7.3%
6.	Automotive	6.5%
7.	Vacant	6.5%
8.	Residential	2.7%
9.	Parking	2.6%


Burrard Br.
Granville Br.
North
197
207
217
218
219
220
227
228
229
230
237
238
239
240
FOURTH
247
248
249
250
267
268
269
270
271
287
288
289
290
291
307
308
309
310
311
327
328
329
330
331
BURRARD
GRANVILLE
BROADWAY

Block Numbers

CURRENT TREND

To gain a perspective of precisely what is happening within the industrial segment of the study area, the land-use for each separately registered parcel was identified using 1981 assessment records (the last year for which complete data was available at the commencement of the study). This process covered all the land within the study area zoned M-1, with the exception of Blocks 250 and 271, which are almost totally consumed by the Granville Bridge cloverleaf. The results of this process are summarized in Table I and 2, p.23.

The most significant facts to emerge from this analysis are:

-That wholesaling and storage is the largest single land-use within the study area's M-1 lands, occupying 42% of all parcels; and 40% of the area.
-That all other industrial activities combined occupy only 7% of parcels; and 12.5% of the area.
-That 51% of parcels; and 47.5% of the area is occupied by activities that are not industrial at all.

TRANSITION TO MIXED USE

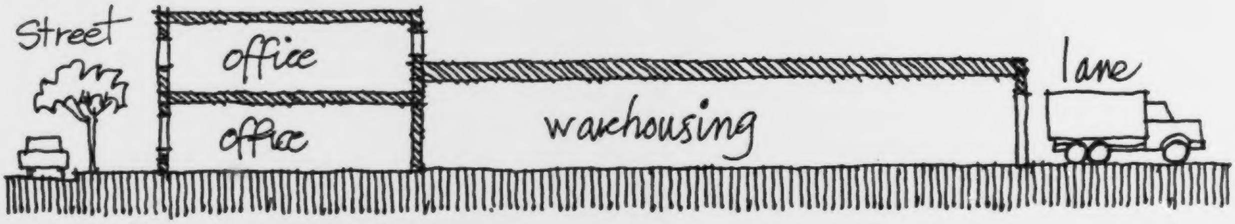
Basically, the industrial portion of the study area, with the exception of Molson's and Pacific Press, is in a state of transition from a truly industrial area to a mixed-use area, with the current dominant use being warehousing and storage. These activities tend to be small in scale, reflecting the small-lot parcelization and comparatively low development-intensity of the area. For the most part they serve either a relatively localized, principally core-located, market, or a small, specialized but geographically widespread market. In either case the combination of centrality, provided by the core-area locale, and relatively low rents, associated with older buildings, is a principal determinant for locating in the area. However, with rising land values and correspondingly rising assessments and property-taxes, this low-rent advantage is beginning to be eroded.

TYPICAL EXISTING BUILDING TYPE

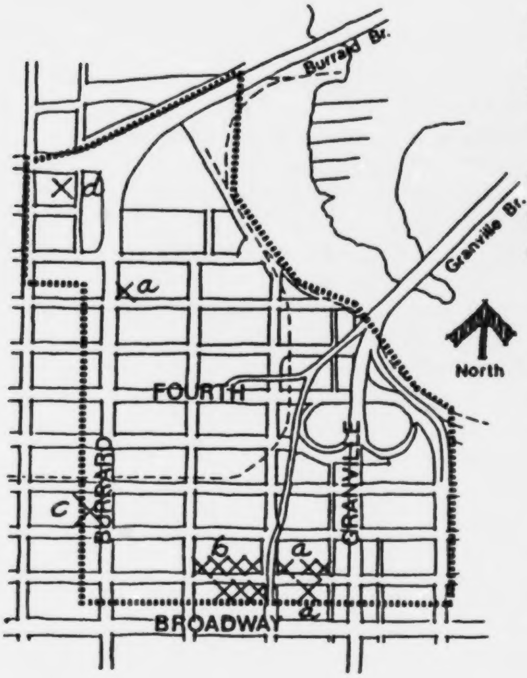
Most of the buildings are no higher than two stories with F.S.R. of less than 2.00. The narrow lots, as little as 25'0" wide, have limited the possiblities for more complex buildings with freight elevators, multi-level parking or basements. There are almost no basements in the industrial area, not because of site problems but because the intensity of use did not warrant the excavation. A typical building might be characterized as a large open area with a concrete floor at grade, a high ceiling for light manufacturing or warehousing, constructed of an inexpensive wood roof and concrete block walls. At the street side there may be a small two storey section for offices and employee facilities. These are extremely simple structures with little mechanical equipment or plumbing; factors which make changes in use quite simple. However, the only setback required is 10 feet at the lane and many are built to that site coverage leaving no space for a loading bay or parking. It is this factor which complicates their re-use for purposes which have higher occupancy loads and consequently need more parking.

Typical lane in M-1 industrial zone

1700 Block West 3rd Avenue



Typical Small Industrial Building



COMMERCIAL

Commercial uses can be broken down into three major sub-classifications of "Office", "Retail" and "Service".

OFFICE

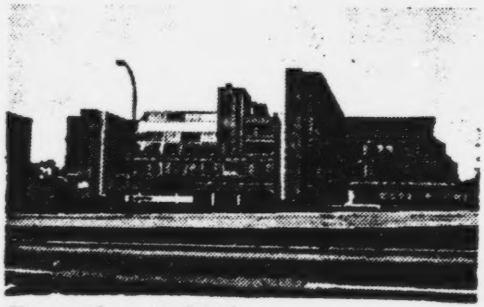
Within the study area, four types of office development can be identified:

a) Multi-occupancy rental office buildings (e.g. several along 7th and 8th Avenues, building at 2nd and Burrard).
b) Single occupancy commercial office buildings (e.g. Associated Engineering Services Ltd. building at 8th and Pine).
c) Single occupancy institutional office buildings (e.g. B.C. Teachers' Federation, United Way).
d) Office conversions of, or intrusions into industrial space (e.g. former Coca-Cola plant converted to Chemetics Office Building).

Office Building 2nd Avenue at Burrard Street

A review of occupancy types indicates that the area has a strong appeal for firms and institutions that serve a city-wide or region-wide market, and hence seek a relatively central location; but that can forego the prestige (and higher rent) associated with a location in the downtown peninsula. These include consulting Engineers, manufacturer's representatives, professional and vocational associations, etc. Office rentals within the area tend to average about 2/3rds that for similar accommodation within the C.B.D. and from 10% to 20% higher than in other suburban locations. Except for conversions of the smaller industrial or warehouse buildings these are generally non-combustible, airconditioned buildings with parking, at or near current office building standards.

1500 Block West 8th Avenue

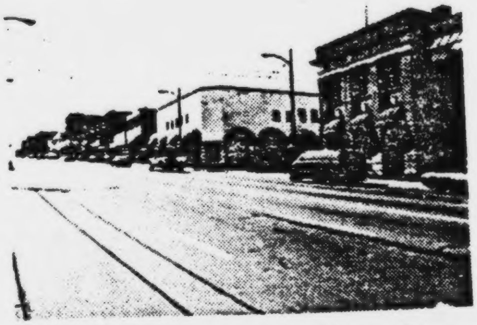


Chemetics Building

RETAIL

Retail uses within the study area are found in two "strip" commercial areas. These are:

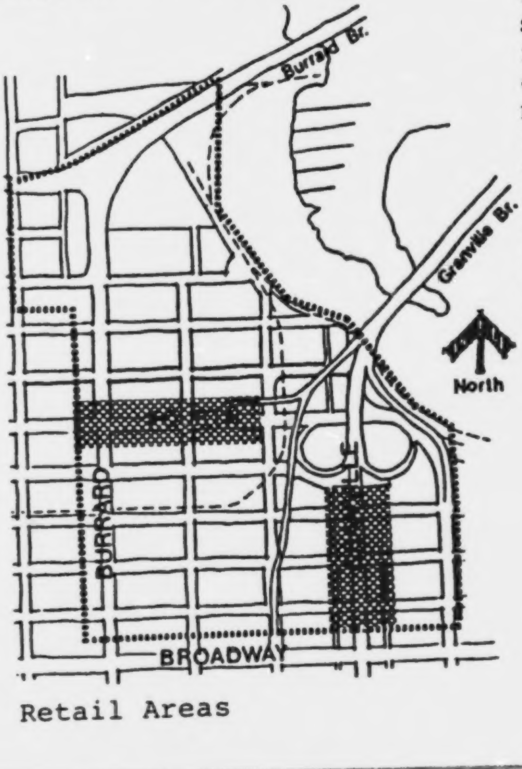
- Granville, from 6th Avenue to Broadway - a northerly extension of the more intensively developed South Granville Shopping District to the south of the study area.
- 4th Avenue from Burrard to the approach-ramps of the Granville Bridge - a low intensity extension of a more intensively developed shopping strip extending westward beyond the study area boundary.


Looking South on Granville Street

Both of these retail areas had their historical origins in the streetcar era, when the pedestrian-oriented commercial strip along streetcar routes was the most appropriate form for suburban retail development. Such retail strips in Vancouver (and indeed in all North American cities), have become vulnerable to economic decline as shopping patterns have evolved in response to the dominance of the automobile and the associated development of planned, auto-oriented shopping centres.

Looking East on 4th Avenue from Burrard Street

Accordingly, the evolution of these two commercial areas has seen them shed most of the more typical retail functions, such as groceries, pharmacies, clothing and stationery, in favour of more specialized roles. Thus the South Granville strip is now heavily occupied by such uses as commercial art galleries, antique stores, and furniture and silverware restorers. The 4th Avenue strip, on the other hand has acquired such uses as film-processing laboratories, camera and instrument repairs, audio-visual rentals, and musical instrument sales.

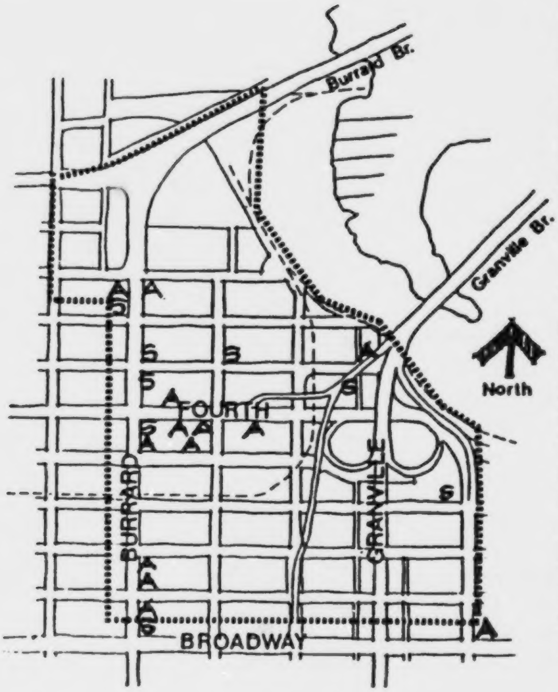


Retail Areas

In a manner parallel to that of offices in the study area, these are businesses and firms that require the economic support of a much larger market area than the "typical" suburban retail outlet and therefore seek relatively central locations; but which, on the other hand, cannot afford, or do not wish to pay the higher rents associated with the C.B.D. or a regional shopping centre. Most of these businesses operate out of smaller, older buildings; frequently one-storey.

SERVICE COMMERCIAL

The term "service commercial" is a somewhat ambivalent one, sometimes restricted to describing "personal services" such as dry-cleaner outlets, shoe repairs, barbers and beauticians. However, it is also frequently expanded to include automobile-oriented sales and service, and it is in this broader sense that the term in used in this report.



Service Commercial
A Automotive Services
S Service Station

Due to the very limited local domestic market, and the low pedestrian volumes on its streets, there are virtually no personal-service outlets within the study area. By contrast however, the area contains a substantial amount of automobile-oriented uses, with a total of 22 such firms being identified in this study. Of these, 9, or over 40% are concentrated in the nine-block length of Burrard Street, while the remainder are scattered in a more-or-less random pattern throughout the area.

This strong concentration along Burrard Street is due in large part to the fact that, unlike the other major arterial streets passing through the area, Burrard is not now, and never has been a transit street. Consequently it did not develop an active strip of pedestrian-oriented retail facilities during the pre-war era, as was the case with Granville and 4th Avenue. This made it an easier street for automotive firms to penetrate during their period of most rapid development in the decades following World War II.

This ease of penetration was further aided by the fact that the subdivision pattern made Burrard a "flanking" street, rather than a "frontage" street as is the case with most other city arterials. Accordingly, a continuous frontage of some 120 feet (as is usually desired by automotive firms) could be relatively easily acquired through the purchase of a single lot, as opposed to the cumbersome process of assembling a number of 25 foot lots.

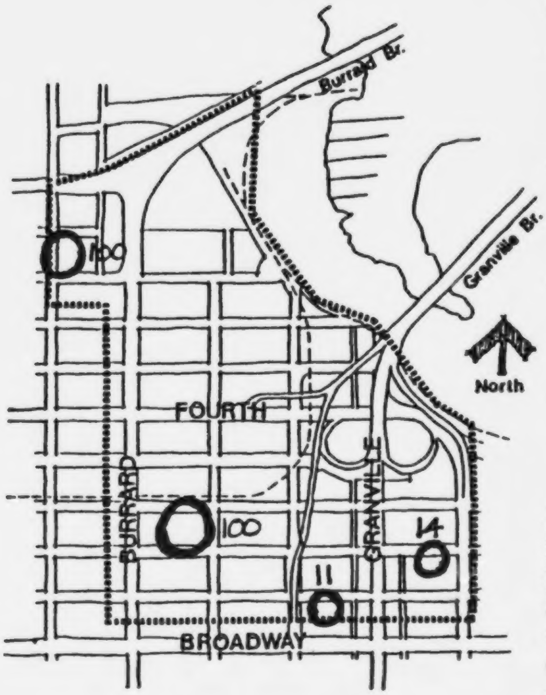
Looking North on Burrard Street from 8th Avenue

The Burrard Street automotive uses are of the type that desire high visual exposure to substantial traffic volumes (gasoline service stations and new-and-used car sales), whereas the firms located elsewhere in the area are less dependent on visual exposure, such as body-shops and tune-up specialists. The automobile showrooms are almost all purpose built, good quality newer buildings, while many of the supporting auto-servicing businesses use older, less permanent structures.

RESIDENTIAL

There is very little of the original stock left within the area, with this being limited to a random scattering of 12 old frame houses, 3 small and rather old apartment blocks, and the occasional dwelling unit within a commercial or industrial building. However, there has been some recent expression of interest in new housing within the area, as evidenced by development permit applications. These include:

- -14 units in a proposed mixed-use development on the south side of 7th Avenue between Hemlock and Granville;
- -11 units in a proposed mixed-use development on the south side of 8th Avenue between Granville and Fir;
- - 100 units in the Comprehensive Development block bounded by 6th Avenue, 7th Avenue, Burrard and Pine Street; and
- - 100 units on the former Bekins site on Chestnut between York and Fir.



Residential proposals

In view of the current uncertainty regarding some of these development proposals, and of the very limited nature of the existing housing stock, an analysis of residential opportunities, interests and pressures relating to the planning area must involve an examination of conditions surrounding, rather than within, the area.

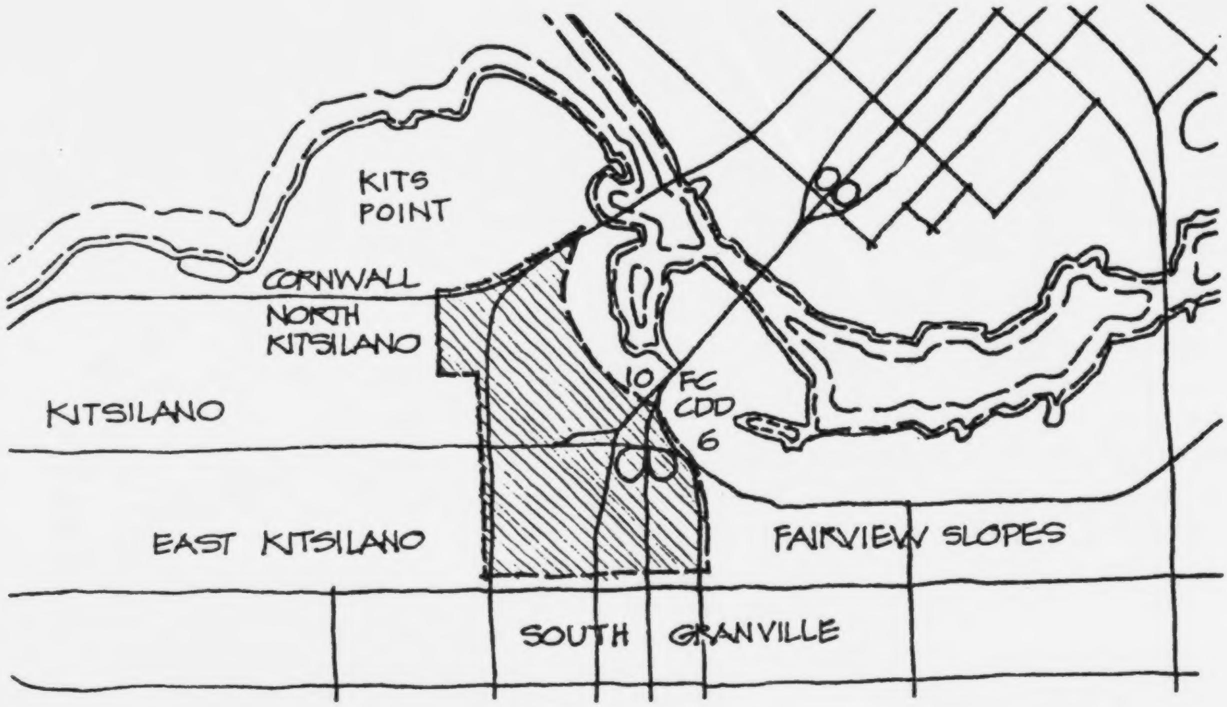
ADJACENT RESIDENTIAL AREAS

The study area is virtually surrounded by residential areas. To the south, across the intervening Broadway commercial strip, lie the extensive residential areas of East Kitsilano and South Granville; to the West, Kitsilano; to the north, Kitsilano Point; to the North-East, False Creek Areas 6 and 10; and to the East, the Fairview Slopes.

The City has applied various zoning categories to these surrounding areas, all of which are of a medium-density, multi-family character, as follows:

TABLE III

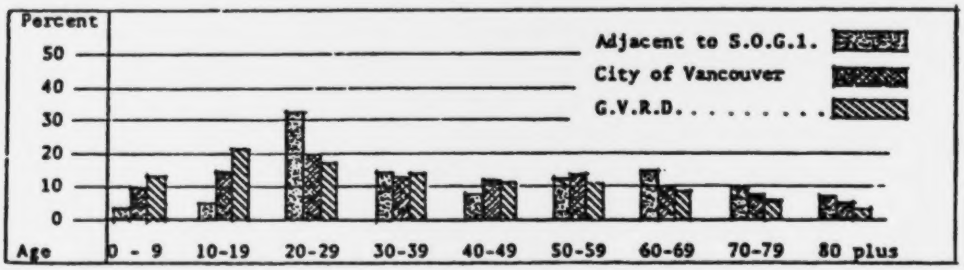
Area	Zone	Density or F.S.R.	Max Ht.	Front Yard
East Kits/S. Granville	RM-3	1.6± (incl. bonus)	120 ft.	20 ft.
Kitsilano	RM-3B	0.75 (up to 1.45)	39 ft.	20 ft.
Cornwall/N. Kitsilano	RM-3A1	0.75 (up to 1.45)	35 ft.	20 ft.
False Creek Area 6	FCDDD	60 units/net acre	140 ft.	N/A
False Creek Area 10	FCDDD	74 units/net acre	80 ft.	N/A
Fairview Slopes	FM-1	1.5 (with conditions)	35 ft.	0


KITS POINT
CORNWALL NORTH KITSILANO
KITSILANO
10
FC CDD 6
EAST KITSILANO
FAIRVIEW SLOPES
SOUTH GRANVILLE

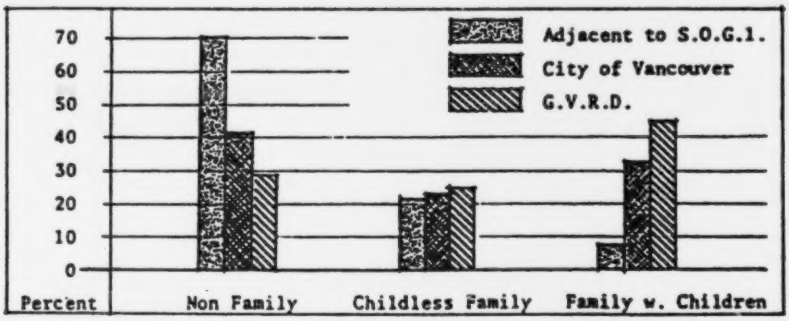
ADJACENT POPULATION CHARACTERISTICS

Census data was reviewed to determine the basic population characteristics of the surrounding area. Data for 1976 had to be used, as 1981 was unavailable at the time of research; thus excluding from the process the False Creek areas, which were undeveloped in 1976.

The Census data discloses that, in comparison with the City and Region, the area surrounding the S.O.G.I. Study Area accommodates a much higher than average percentage of residents in the 20 to 29 year age bracket; a much smaller than average percentage of children; and a moderately higher than average percentage of persons above the age of 60.

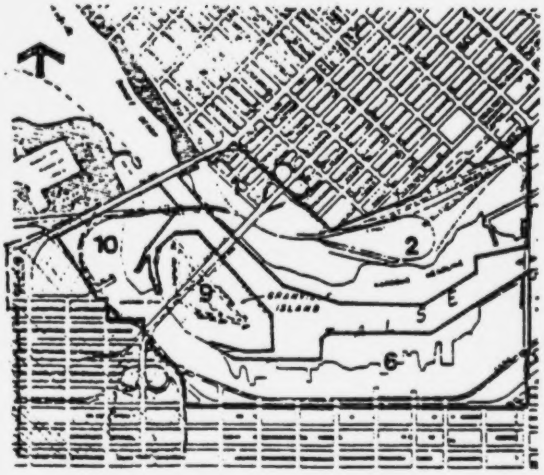


1976 Population Characteristics, Comparing Area Adjacent to S.O.G.1. with City of Vancouver and G.V.R.D.



1976 Household Characteristics, Comparing Area Adjacent to S.O.G.1. with City of Vancouver and G.V.R.D.

The census statistics for households present a similar picture, indicating that the study area has a much higher than average percentage of non-family households, a near-normal percentage of childless-family households, and a much lower than average percentage of households comprising families with children.



FCCDD Official Development Plan for False Creek
JUNE 1981

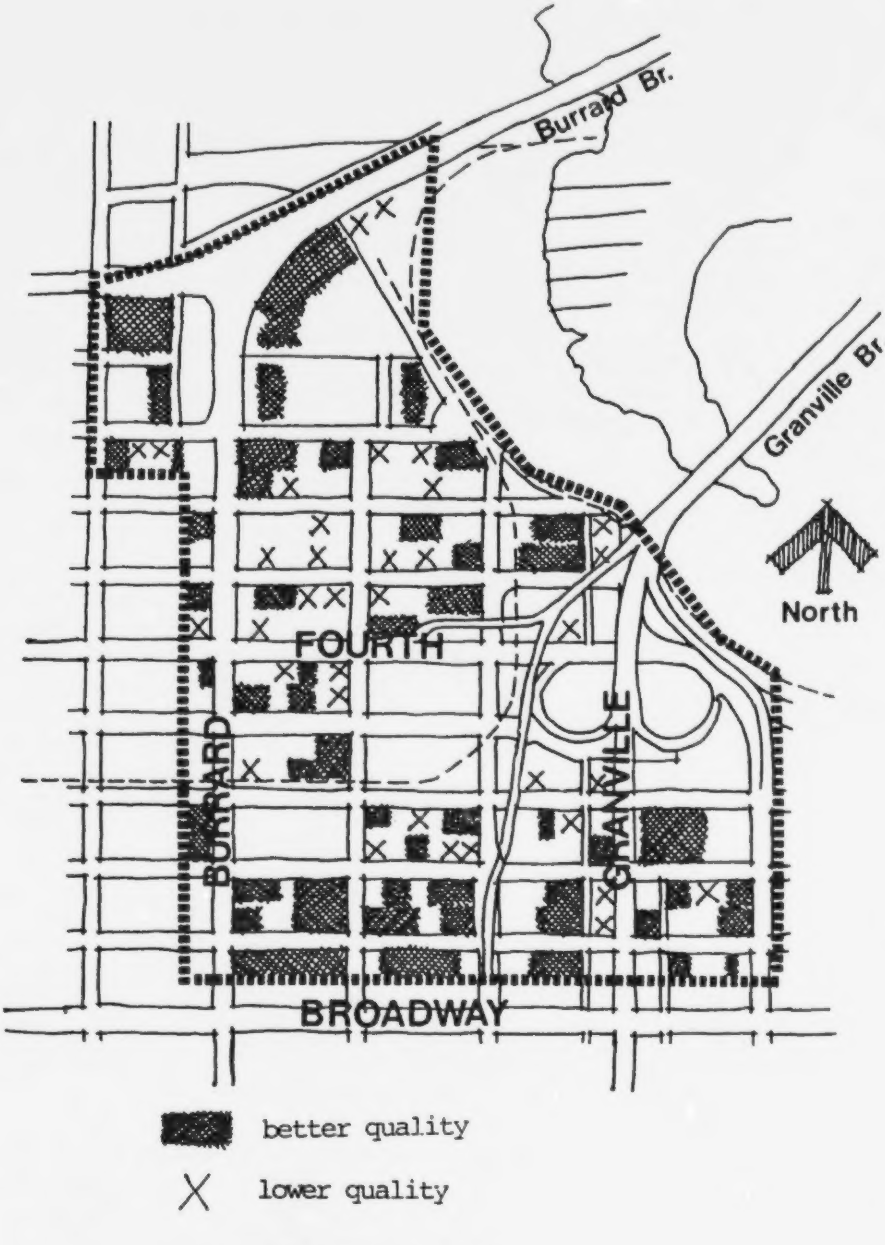
The above noted housing characteristics, which apply to the incremental development and redevelopment processes in South Granville and Kitsilano, represent a more-or-less pure "market" response to housing factors. On the other hand, in the False Creek housing areas (for which census data are not yet available), the City has attempted, through Comprehensive Development zoning and land ownership participation, to alter these characteristics for social-policy purposes. Accordingly, the False Creek Official Development Plan Bylaw (No. 4812) establishes the following household mix as an area-wide objective:

Families with children	25%
Couples (young and mature)	25%
Elderly	15%
Singles	35%

This represents a substantial increase in the "family-with-children" category, and a corresponding decrease in the "non-family" category, while holding the "childless-family" proportion at roughly the same level as found in the "market-response" conditions prevailing in adjacent areas.

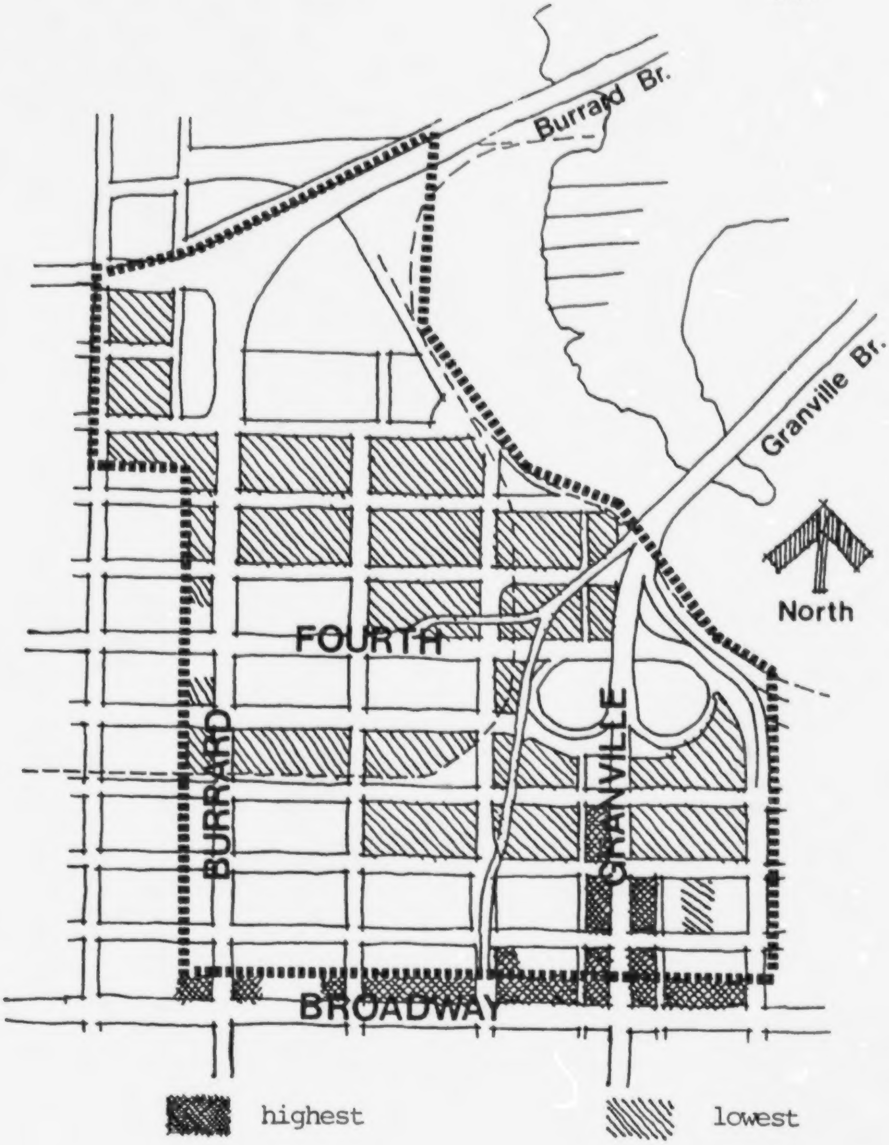
The principal mechanism for endeavouring to achieve the desired mix is the design of housing units. Since there is no acceptable way of guaranteeing that actual occupancy will precisely match the designer's intent, it remains to be seen just how successful the City will be in accomplishing its objectives in this regard.

The main significance of the foregoing analysis is to establish the residential profile that could be expected to materialize if housing were to be made a substantial component of the land-use mix in the study area. Basically, without strong public intervention to the contrary, it could be expected to be occupied predominantly by singles and childless couples, with very few families with children.


Burrard Br.
Granville Br.
North
FOURTH
BURRARD
GRANVILLE
BROADWAY
▨ better quality
X lower quality

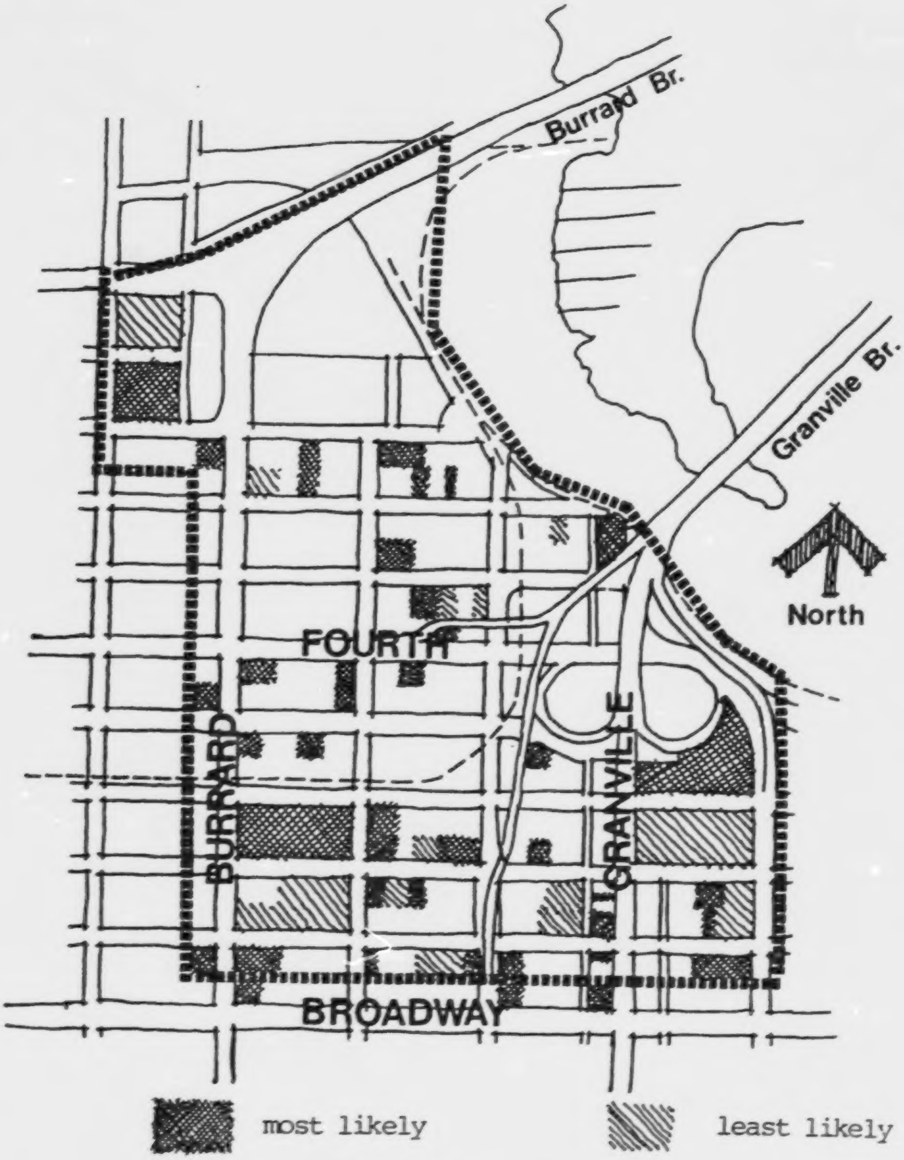
MAP 3 BUILDING QUALITY

This map records a subjective appraisal of the condition of existing buildings. The study area does not have many buildings in poor condition. The M-1 industrial zone does have a number of buildings of below average condition which would indicate a "holding action" by the owners. There are also some poor buildings along Granville Street.


Burrard Br.
Granville Br.
North
FOURTH
BURRARD
GRANVILLE
BROADWAY
highest
lowest

MAP 4 LAND VALUES

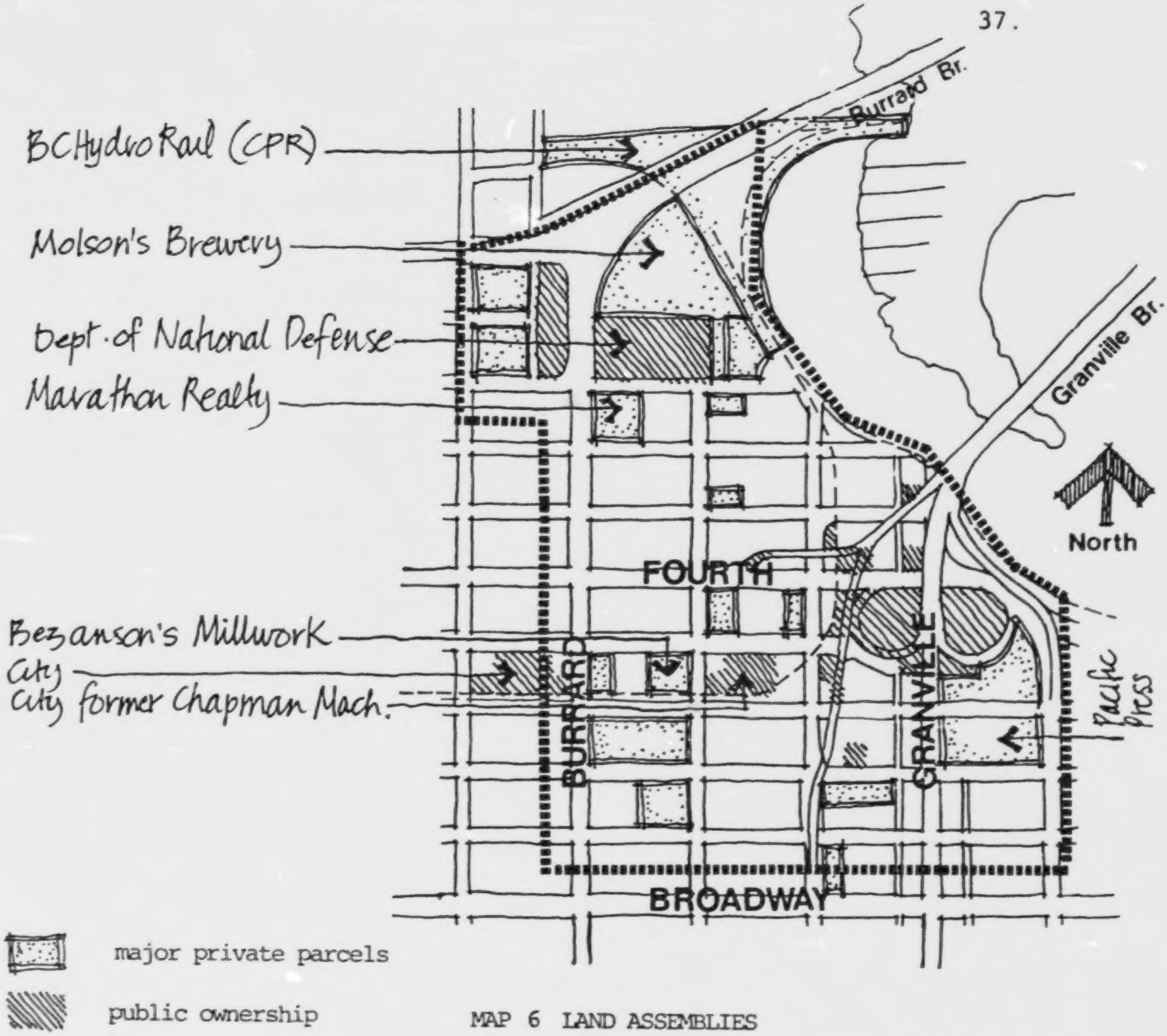
This records relative land values from the 1981 assessment roles. As might be expected, the commercial zones near Broadway and along Granville Street are the more valuable and the industrially zoned areas are the least valuable .


Burrard Br.
Granville Br.
North
FOURTH
BURRARD
GRANVILLE
BROADWAY
most likely
least likely

Likelihood of Redevelopment

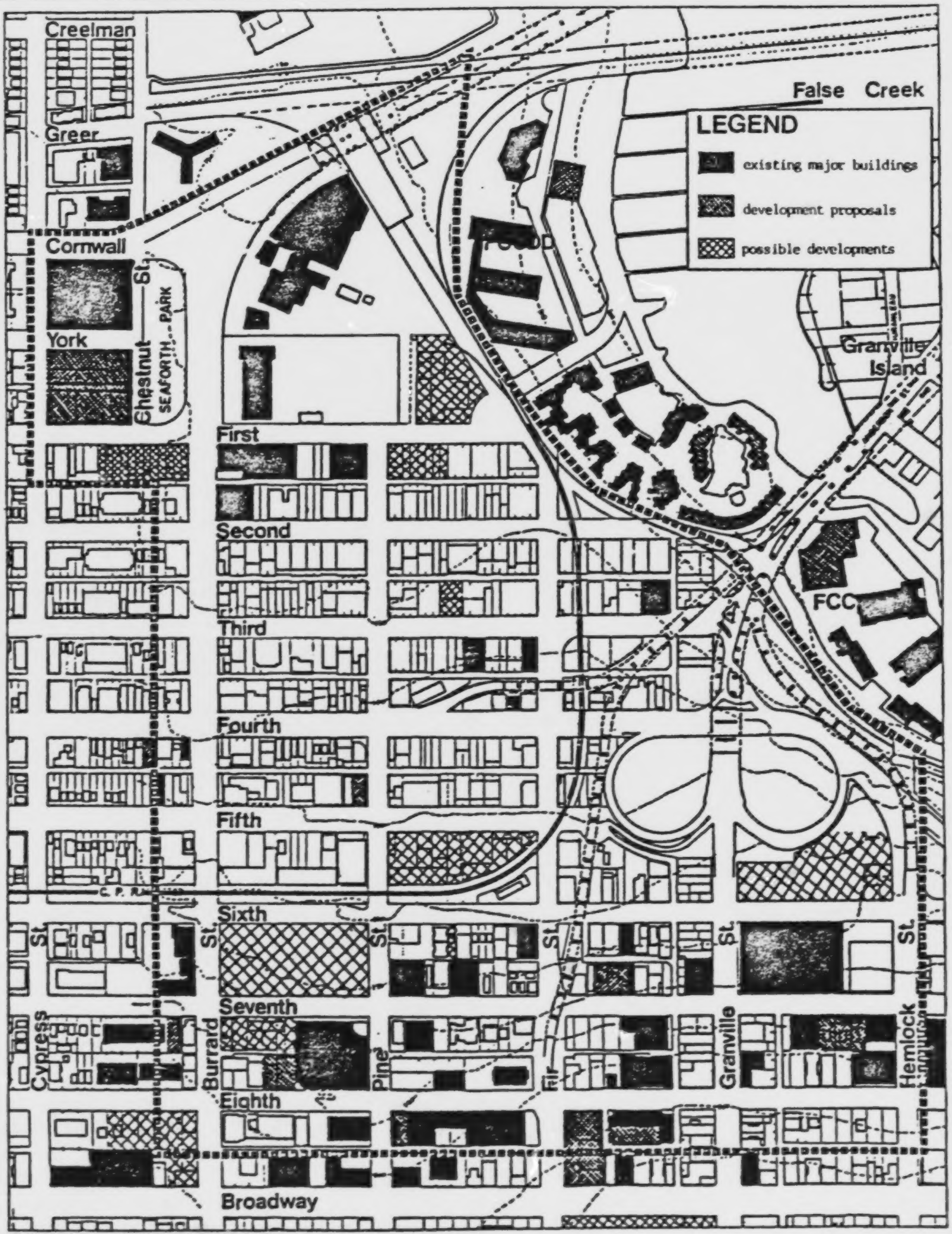
MAP 5 RATIO OF LAND VALUE TO IMPROVEMENT

This map records the ratio of the value of the land to the value of the improvements, based on the 1981 assessment roles. From it one can observe that there are many sites with low-value improvements, or no improvement at all, in the industrial areas giving high land value to improvement value ratios and consequently a high probability of redevelopment.


Burrard Br.
Granville Br.
North
BCHydro Rail (CPR)
Molson's Brewery
Dept. of National Defense
Marathon Realty
Bezanson's Millwork
City
City former Chapman Mach.
Pacific Press
FOURTH
BURRARD
GRANVILLE
BROADWAY
major private parcels
public ownership

MAP 6 LAND ASSEMBLIES

This map records cases of ownership of more than two adjacent properties by a single owner which if coupled with a high ratio of land value, could indicate a strong potential for redevelopment. This map also indicates land owned by the city which could be of strategic importance. The two most prominent parcels identified for redevelopment are the full block on the east side of Burrard Street between 6th and 7th Avenues and the site north of 6th Avenue from Granville to Hemlock Streets. The city-owned property, formerly Chapman Machinery, in the 1600 block west of 5th Avenue, on the South side, is in a strategic location in respect to the future rapid transit line. Similarly, the city-owned property at 5th and Burrard Street, extending west is also strategically located.


Creelman
Greer
Cornwall
York
Chestnut St.
SEAFORTH PARK
False Creek
LEGEND
existing major buildings
development proposals
possible developments
Granville Island
FCC
First
Second
Third
Fourth
Fifth
C. P. R.
Sixth
Seventh
Eighth
Broadway
Cypress St.
Burrard St.
Pine St.
Fir St.
Granville St.
Hemlock St.

SOUTH of GRANVILLE ISLAND STUDY TWCG consultants

EXISTING AND POTENTIAL DEVELOPMENTS

7

MAP 7 CURRENT PRESSURES

This map depicts current pressures by recording current development permit applications and possible development based on inquiries received by the city. These are set in the context of existing buildings which because of their size, newness, or importance, were felt to be major fixed elements within the study area for the forseeable future.

Of those buildings assumed to remain there are two large industrial operations; Molson's Brewery, Burrard and Cornwall, and Pacific Press, 6th Avenue at Granville Street. The Data Center at 8th and Fir represents a modern service-industry related to the commercial and banking activities of the downtown. Another major fixed element is the Chemetics Building, Cornwall at Cypress, containing offices with limited retail. Since this is a relatively new conversion from an industrial use it can also be seen as an indicator of current pressures as well as a fixed element. The other fixed elements are primarily offices and, except for a building at 2nd and Burrard Street, are mostly in the southern part of the study area.

The major development proposals are almost entirely for offices with a small amount of residential. The most significant residential proposal is on the Bekins Storage site where the western portion contains 100 residential units relating to the adjacent Kitsilano apartment zone. Adjacent to this site at 1st and Cypress Street there is a modest mixed-use development containing about 10 residential units and office space. A major industrial building was proposed on the former Chapman Machinery Site utilizing the full existing zoning. However with the city's recent purchase of that site the project appears to have lapsed. Two small industrial buildings were recently built in the 1600 block of West 3rd Avenue: Redden Nets and XJ Jaguar Servicing. One small industrial computer building has been proposed at 5th and Pine. A relatively unique proposal has been made for a Trademart (Design Centre) Building on the Osborne Propeller Site, 1st Avenue and Fir Street.

A.8 URBAN FORM ELEMENTS

Study Area from Granville Bridge

CITY CONTEXT

The study area forms the south-western edge of the False Creek bowl and is one of the last area around the bowl to receive detailed study. The area is not readily identifiable from other parts of the city. From the downtown it lies below the crest of the ridge at Broadway and is recognized largely from the bridges and approaches as an under-developed section surrounded by identifiable areas of obvious development activity.

The study area as a whole does not exhibit any recurring unifying characteristics, unlike the more cohesive areas surrounding it. However, certain elements recur in the major streets and some features stand out as reference points in the wider urban context.

Looking North on Burrard Street from 8th Avenue

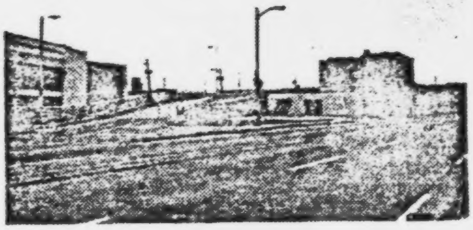
BURRARD THOROUGHFARE

The main thoroughfares of Burrard and Granville Streets are relatively consistent through the study area. Burrard Street has street trees along the sides and in the traffic islands. Street frontage lots along Burrard are half blocks in length resulting in relatively large-scale developments. The street has little to offer the pedestrian in terms of scale and activities. For the city as a whole it represents a major vehicular boulevard to the downtown.

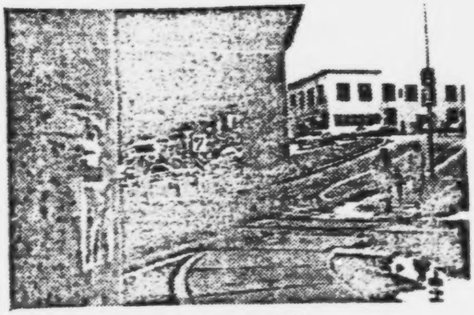
Looking North on Granville Street from 7th Avenue

GRANVILLE STREET

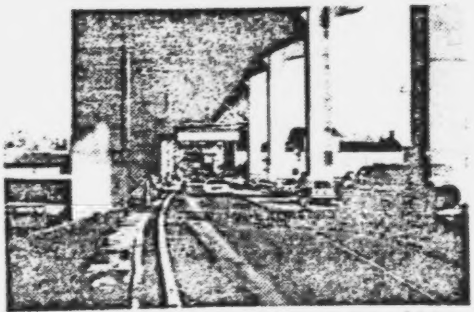
Granville Street is a major traffic and transit street with fairly continuous retail frontages north to Sixth Avenue. Major pedestrian flows focus on the Broadway intersection. Pedestrian-related shops diminish moving northwards, eventually terminating with the Pacific Press Building and the approaches to the Bridge. It is one of the major access routes into the downtown.



4th Avenue Off-ramp



Under Granville Bridge
near 3rd Avenue



Anderson Street under Granville
Bridge

6th Avenue rail r.o.w. from
Burrard Street

FOURTH AVENUE

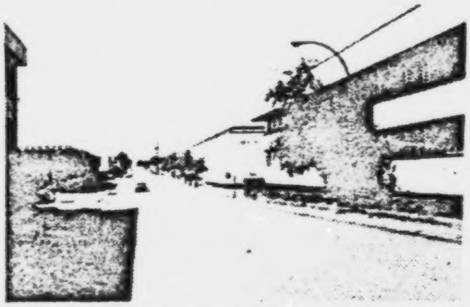
Fourth Avenue to the west of Burrard, comprises an attractive mixture of shops and restaurants, and is lined with street trees. East of Burrard, there are no street trees, activities become increasingly automobile-oriented, and pedestrian flow is hampered by the Granville Bridge off-ramp. East of Fir Street, Fourth Avenue is virtually an automobile only zone.

ANDERSON STREET

The connection from 4th Avenue and the study area in general to Anderson Street and subsequently to Granville Island is confusing and dangerous. This situation has resulted from a piece-meal approach to resolving the various problems. The massive bridge piers and the steep grades combine to screen vehicular movement and obscure views. On the other hand these piers which line Anderson Street beneath the bridge do give a monumentality to the entrance way to the island. The current openness of the promenade will be severely reduced when the proposed apartment buildings adjacent to the bridge are built.

MINOR STREETS

The remaining streets in the study area are comparatively less well defined. The off-ramp into Fir Street is significant in directing traffic, and confusing vehicular movement north of Eighth Avenue. The B.C. Hydro Rail right-of-way effectively widens the public zone along 6th Avenue to 120 feet. Street landscaping is relatively non-existent except for the few blocks north of 6th Avenue with trees and grass boulevards - remnants of the model industrial area of the past recent decades.



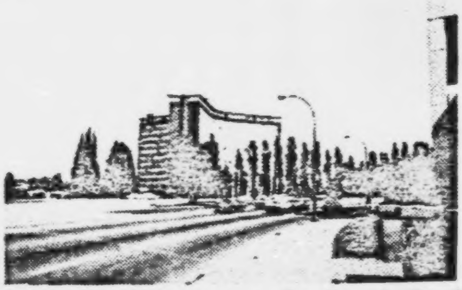
1600 - 1700 Block West 8th Avenue

On the upper slopes, especially 7th and 8th Avenues, it is common on the upper or south side of the street to have parking entrances off the street. This reduces the pedestrian amenity of those areas. Similarly 6th Avenue east of Granville Street has become virtually a service way to the extensive Pacific Press loading docks. The Masonic Temple on 7th Avenue east of Granville and the Data Centre at 1745 West 8th Avenue are good illustrations of the deadening effect of this type of internally-focused, blank facade buildings on the street scape.

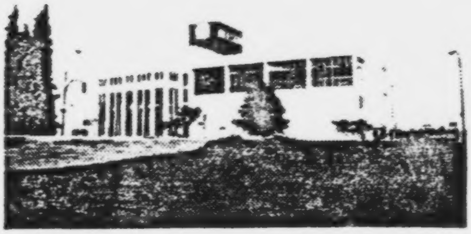
LANDMARKS

Aside from visual connection to downtown there are a number of 'landmarks' within the study area that constitute urban reference points. The star-shaped Parkview Towers apartment at Cornwall and Burrard, the Molson's 'time and temp tower', and the Seaforth Armouries all provide reference points in the north-west section of the study area. Also the Pacific Press Building is prominent, due primarily to its size and location. The bridges themselves and the cone-shaped planetarium roof also provide recurring reference points in proximity to the study area.

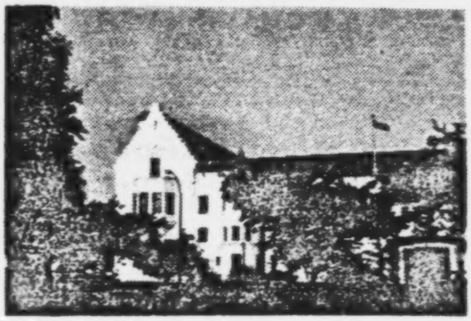
The landmark buildings are not necessarily significant in terms of architectural merit, but are important in terms of their visual prominence in the wider city. The study area does not contain any groupings of buildings that could be classified as 'character districts'.



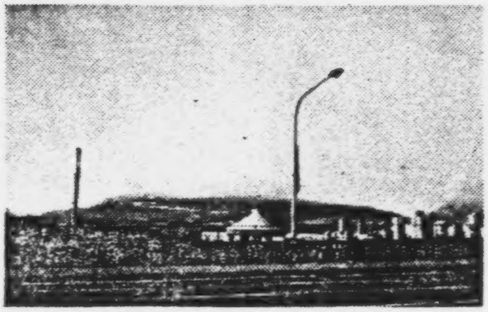
Parkview Towers at Seaforth Park



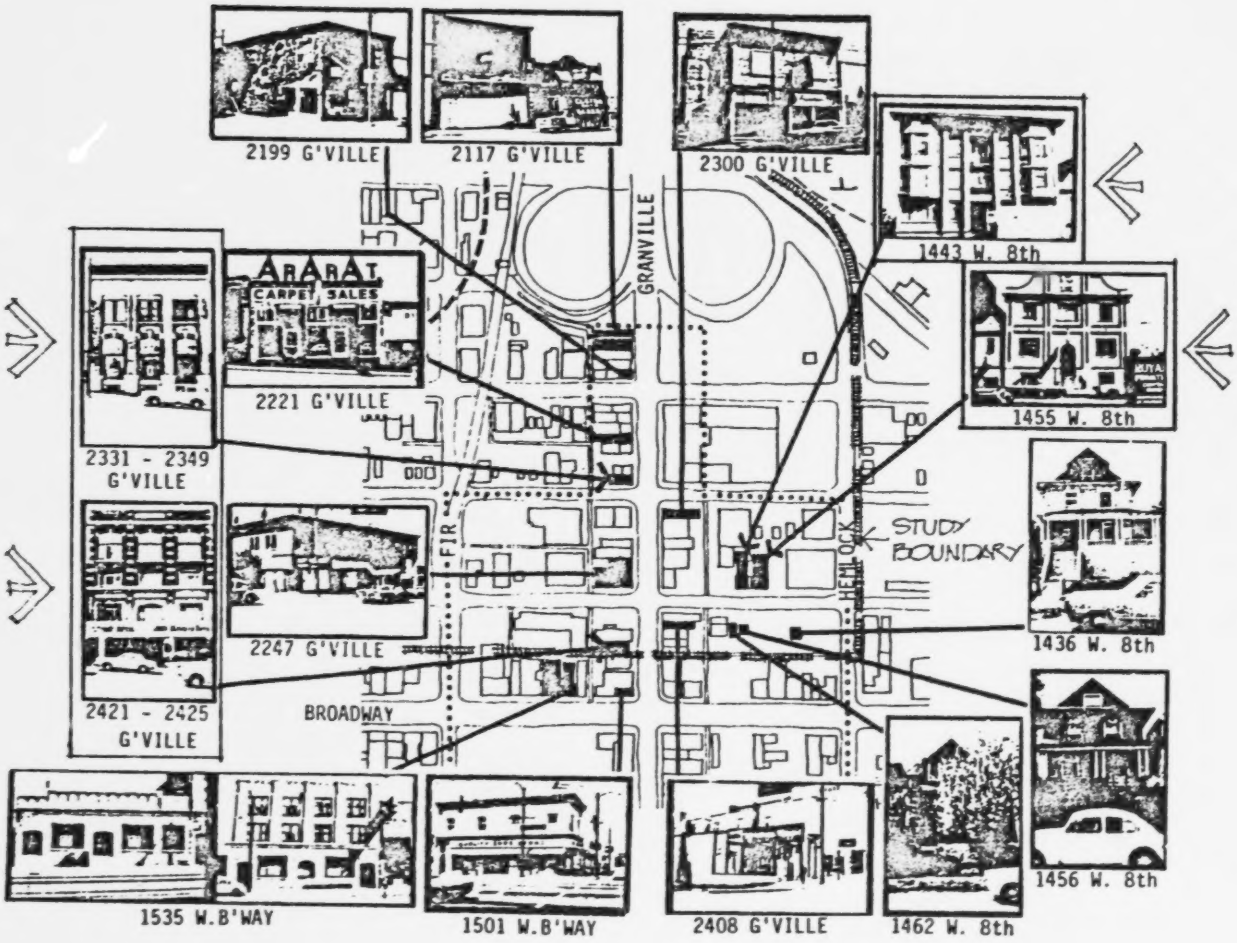
Molson's Brewery form Seaforth Park



Seaforth Armories



Looking North-West from Burrard Bridge ; Planetarium in Centre


2199 G'VILLE
2117 G'VILLE
2300 G'VILLE
1443 W. 8th
GRANVILLE
ARARAT CARPET SALES
2221 G'VILLE
1455 W. 8th
2331 - 2349 G'VILLE
STUDY BOUNDARY
FIR
HEMLOCK
2247 G'VILLE
1436 W. 8th
2421 - 2425 G'VILLE
BROADWAY
1535 W.B'WAY
1501 W.B'WAY
2408 G'VILLE
1462 W. 8th
1456 W. 8th

Central Broadway Urban Design study 1975

SIGNIFICANT OLDER BUILDINGS

Several significant older buildings were identified in an earlier study; "Central Broadway Urban Design" prepared by Norman Hotson Architects, June 1975." Those which still seem pertinent are in the Granville Street area as shown above. Those within the study area still exist except for the older houses which have given way to redevelopment. Of the remainder there are four which appear to have maintained sufficient qualities to warrant further study. They are:

- 2331-2349 Granville St., former Royal Bank, probably the closest to a Heritage building in the study area.
- 2421-2425 Granville St., apartment building with ground floor retail.
- 1443 West 8th Ave. apartment building.
- 1455 West 8th Ave. former lodge hall

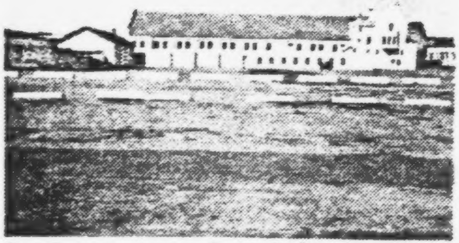
OPEN SPACE AND LANDSCAPE

Also of note are the major open spaces in the study area: Seaforth Park and the Granville Bridge Cloverleaf. Seaforth Park, the equivalent of about one city block, was formerly partly a lawn bowling green but currently is an almost unused grassed area with poor drainage and some trees. Also in public ownership is the large paved open space behind the Seaforth Armories, used primarily for drilling and parking army vehicles. The Granville Bridgehead open spaces are also grassed, and almost unused except for a pedestrian path to Granville Island. The space created by the rail r.o.w. parallel to 6th Avenue provides a degree of openness along the street.

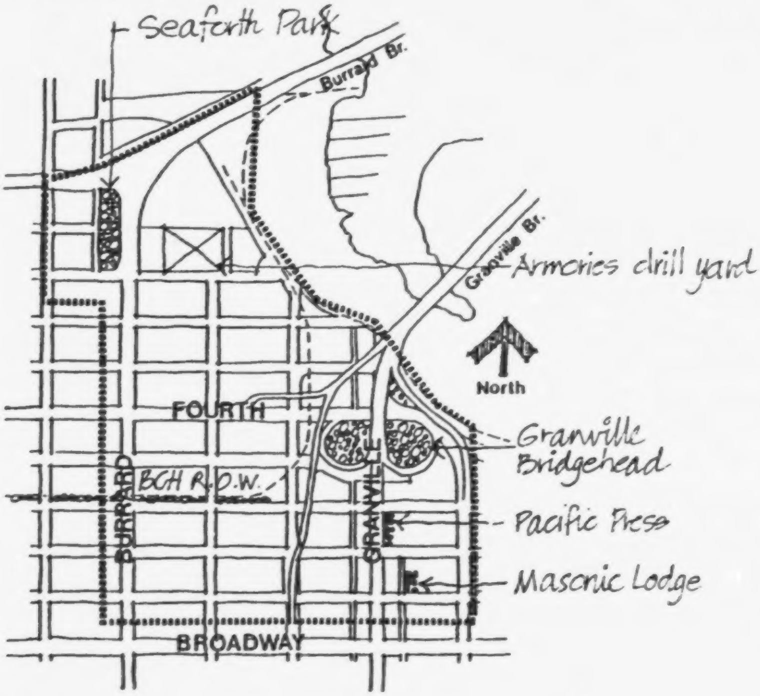
There is virtually nothing left of the indigenous landscape in the study area. There are, however, two major public landscaped areas at the end of each bridge. As well there are two significant private landscaped areas, both east of Granville Street. They are the block-long heavily-planted strip in front of the Pacific Press Building and the entrance area off 7th Avenue to the Masonic Lodge. Generally speaking, none of these spaces are used for any activity beyond low-intensity pedestrian movement.

Seaforth Park from Cornwall Avenue

Granville Bridgehead

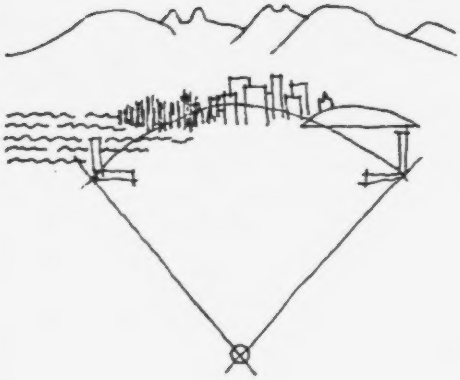

Seaforth Armories drill yard

6th Avenue rail r.O.w. from Granville Bridge

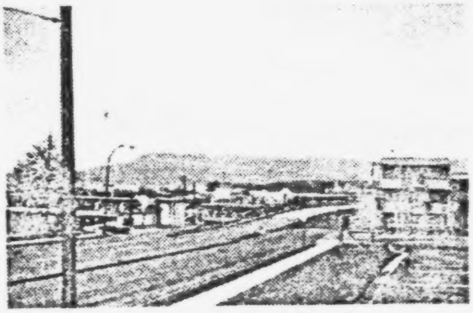

Seaforth Park
Burrard Br.
Granville Br.
Armories drill yard
North
FOURTH
Granville Bridgehead
BCH R.O.W.
BURRARD
GRANVILLE
Pacific Press
Masonic Lodge
BROADWAY

VIEWS

The significant view arc extends from the N.W. to the N.E. with the Coast Mountains forming a continuous backdrop. In the middle ground are the important orientation keys: English Bay, Stanley Park, the West End Apartments, downtown office buildings, and the Stadium. Views in the remainder of the view-arc east, south and west, are not as significant. The study area lies below the crest of the Burrard Peninsula and distant views are not as generally available in those directions.

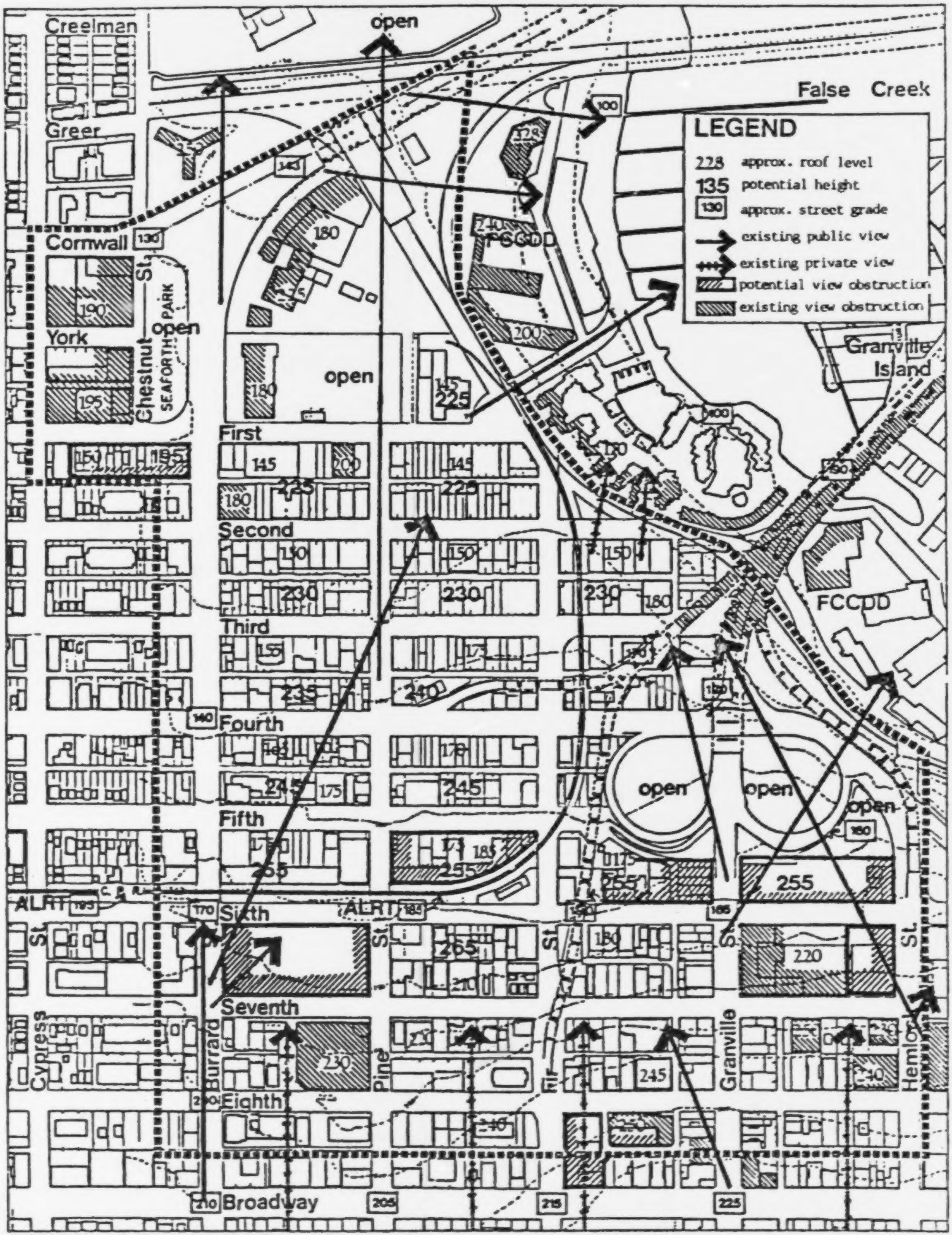


This study of views from the study area is limited to the horizontal plane. These are the most important views and are technically the most accurately verifiable through street grades and building heights. Views above the horizontal to the north shore mountains, and the tops of the taller West End and downtown buildings, will probably always be available from north-south streets and periodically throughout the area. Views below the horizontal to the waters of English Bay and False Creek are almost non-existent except from the upper part of the area. It is difficult to generalize as to how these few views will be affected by future development except to say that buildings of the full 100 foot height limit presently permitted in the industrial area would almost certainly cut them off.



Looking North From Fir Street at Broadway

Clear horizontal views from the study area extend across the False Creek Basin to an approximately similar slope on the north side. For instance Broadway and Granville Streets (el. 225) corresponds roughly to Burrard Street at St. Paul's Hospital and 6th Avenue and Burrard Street (el. 165) corresponds roughly to Burrard Street at Pacific Street. The two bridges do not represent major view obstructions. Although they rise to heights nearly as high as Broadway they are partially open and are more or less parallel to the view direction. The ramps however are often major obstructions.


False Creek
LEGEND
228 approx. roof level
135 potential height
130 approx. street grade
existing public view
existing private view
potential view obstruction
existing view obstruction
open
Creelman
Greer
Cornwall
York
Chestnut St.
SEAFORTH PARK
First
Second
Third
Fourth
Fifth
ALRT
Sixth
Seventh
Eighth
Broadway
Cypress St.
Burrard
Pine St.
Fir St.
Granville St.
Hemlock St.
Granville Island
FCCDD
C.P.R.
N

SOUTH of GRANVILLE ISLAND STUDY TWGG consultants

Views and Building Heights Street, Bridge Grades Elevation base 100' at Seawall 8

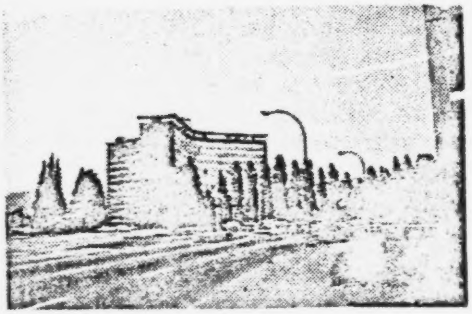
PUBLIC VIEWS

Public views are defined as those seen from street level by pedestrians or motorists. Such views are dictated largely by the orientation of the street system. East-West streets generally have few important views except laterally at intersections and at certain unique gaps in the building forms. The significant public views are North down the North-South streets. Depending on the flanking buildings there can be good North-West and North-East views. Most of these would be lost if the industrial area were fully developed as presently zoned.

Looking North on Burrard Street from 4th Avenue

BURRARD STREET

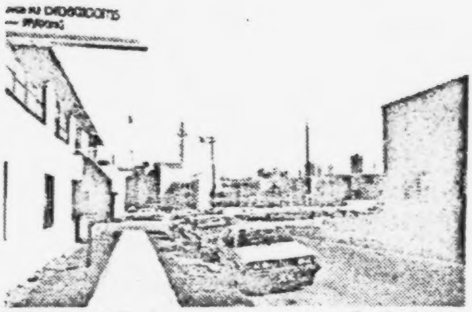
The north view from around Broadway is terminated by the Parkview Towers apartment at Cornwall Street which progressively becomes more dominant as one travels down Burrard Street. There is a north-east view starting at 7th Avenue across undeveloped sites and low industrial buildings. However this view is lost around 6th Avenue because of the FCCDD 10B apartments. The existing and proposed buildings around Seaforth Park (el. 180 to 195) obscure north views from about 7th Avenue and lower. As one swings on to Burrard Bridge; English Bay, the Planetarium and West End come into view. Views to the North-East are blocked by Molson's Brewery, and the B.C.C.C.U. office building.


Parkview Towers

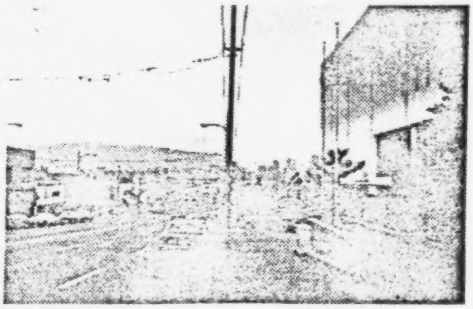
PINE STREET

The north view is available between Molson's Brewery and the F.C.C.D.D. 10A apartments from 4th Avenue and up. north-west and north-east views although now available would be lost by full-height development of the industrial areas.

Looking North-East from 1st Avenue at Fir Street



FCCDD 10B Apartments at 2nd Avenue and Fir Street



Looking North on Granville Street in front of Pacific Press

FIR STREET

The north view is blocked below 8th Avenue by the F.C.C.D.D. 10A Apartments (el 200 to 240). The north-west view, presently limited below 7th Avenue by Molson's Brewery (el 180), would be lost by full-height development of the industrial areas. The Fir Street ramp obscures north-east views. Although good views are available from the bridge ramp, they are not significant because few pedestrians use the ramp and traffic is south-bound.

GRANVILLE STREET

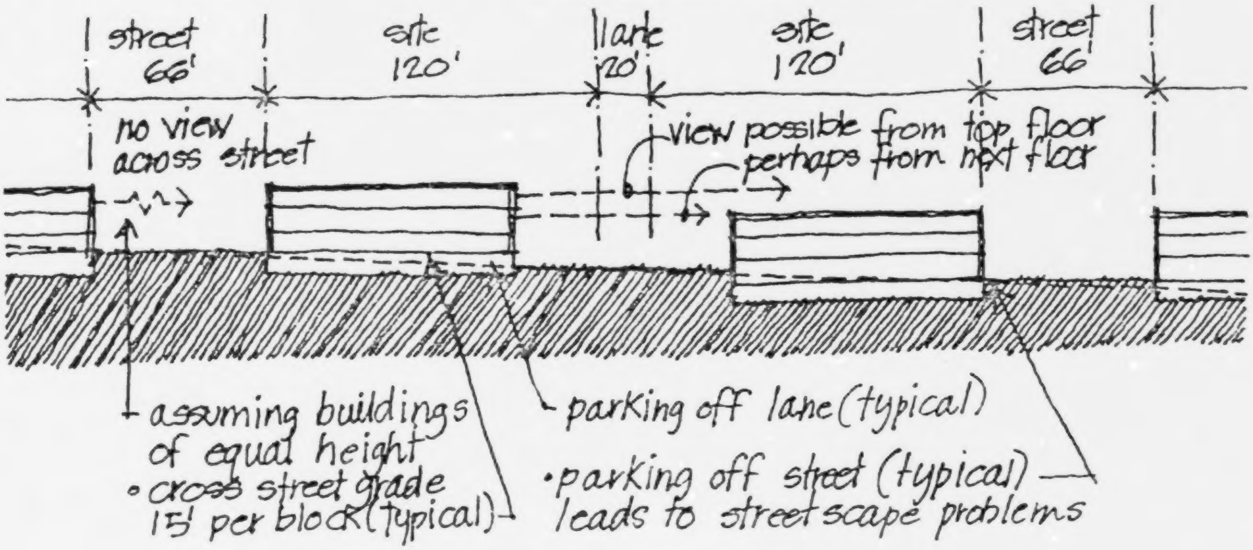
The north view from Broadway is clear to the West End and is maintained down to 6th Avenue because the F.C.C.D.D. Apartments have been kept below the Granville Bridge deck level. At about 6th Avenue, views open up from North-West to North-East. The F.C.C.D.D. 10A Apartments (el 240), the B.C.C.C.U. office building (el 228), Molson's Tower (el.225) and Parkview Towers (e.250) form a middle distance obstruction to the North-West. As one moves through the open spaces at the bridge cloverleafs and under the bridge on to 4th Avenue, and to Anderson Street, some unique slot views are available to False Creek and Granville Island.

HEMLOCK STREET

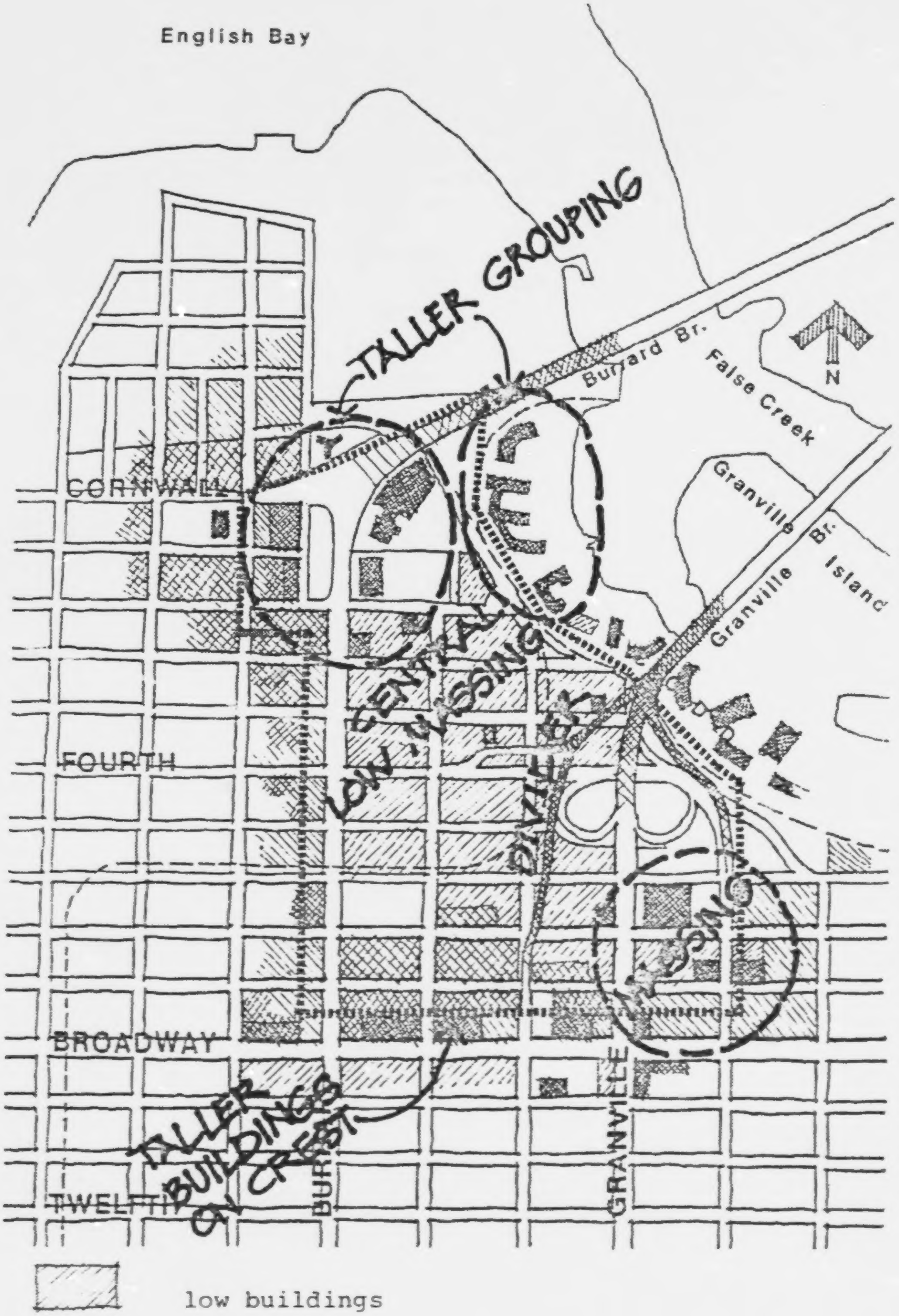
The north view to the West End is clear from Broadway to the bridge approaches. The north-west view opens up at 7th Avenue. The north-east view opens up at 6th Avenue. Views over F.C.C.D.D. are maintained because the apartments have been kept below bridge deck level.

PRIVATE VIEWS

Private views are defined as those seen from private property. This could include outdoor plazas, but since few exist in the study area, it essentially means views from within buildings. There are many such views to the North-West, North, and North-East, especially from the upper slopes. However, there are also interesting lower level views; for instance, from a second floor restaurant at 4th Avenue and Burrard Street. Unfortunately, only those from the upper floors of the taller buildings on Broadway are really permanent. Most are subject to closure by normal development on the lower slopes. Development of the industrial area to it's permitted 100 foot height, which could put buildings to el 255, would almost totally destroy private views. The streets above 6th Avenue typically rise 15 feet per block. Assuming buildings of equal height, buildings on the up side of a lane would get north views from the top and perhaps the next floor. Buildings facing north across a street would have no views. Through efforts of local businesses on the 1500 block of West 2nd Avenue, parts of the F.C.C.D.D. have been kept to three storeys in height thus preserving some private views to False Creek.


street 66'
site 120'
lane 20'
site 120'
street 66'
no view across street
view possible from top floor perhaps from next floor
assuming buildings of equal height
• cross street grade 15' per block (typical)
parking off lane (typical)
• parking off street (typical) leads to streetscape problems

TYPICAL SECTION ON UPPER SLOPES


English Bay
TALLER GROUPING
Burrard Br.
False Creek
Granville Br.
Granville Island
N
CORNWALL
FOURTH
BROADWAY
TWELFTH
BURRARD
GRANVILLE
LOW, CENTRAL MASSING
DIVIDE
MASSING
TALLER BUILDINGS ON CREST

▨ low buildings

▨ medium height buildings - 3 storeys generally

▨ tallest buildings - 4 storeys and higher

URBAN FORM ELEMENTS — Map 9

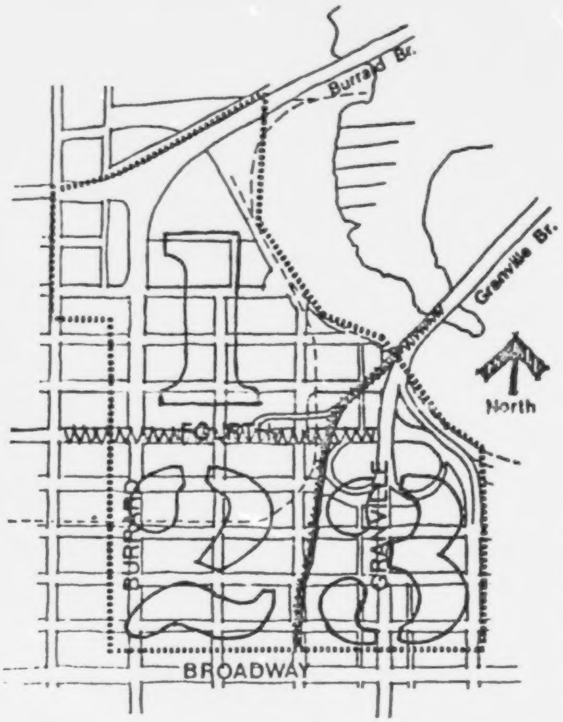
GENERAL BUILT FORM

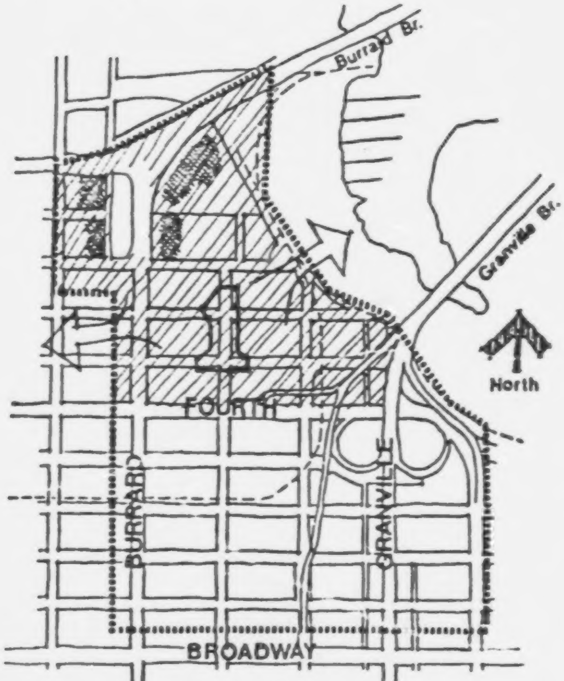
The built form of the study area is characterized by a central section of generally low buildings, one or two stories high, extending over the flatter position roughly from 1st Avenue to 6th or 7th Avenue. South of 6th Avenue, as the ground rises, more substantial structures exist; building up to Broadway where there are buildings of up to 5 storeys. In the north-west corner of the study area there is a growing group of large buildings such as: Molson's Brewery, Chemetics Building and Parkview Towers. These structures, with the BCCCU office building and the Pennyfarthing Apartments in FCCDD 10A form an imposing group. Their mass is relieved by the open space of Seaforth Park and the space of Vanier Park and False Creek. There is also a modest massing near Granville Street largely created by the Pacific Press Building and the Masonic Lodge.

The two bridge approaches are strong elements of the study area's built-form. The Granville Bridge on and off ramps are dominant from 3rd to 6th Avenues. The Fir Street off ramp dominates up to 8th Avenue. These structures are somewhat moderated by the open space at the cloverleafs.

The built-form of the adjacent areas affects the contiguous parts of the study area. East of Hemlock St. the stepped office building on 8th Ave., coupled with the mass in the study area, form a bulky barrier to the Fairview Slopes development. To the west the low scale of the Kitsilano residential area, up to 3 storeys, provides a potentially easy transition in scale. Along the north-east boundary the FCCDD buildings tend to turn their back to the study area, orienting primarily to the amenities of False Creek and Granville Island. Fortunately, there are some lower portions north of 2nd Ave. and an access point at the foot of Fir St. which offer opportunities for transition. The line of taller commercial buildings, growing along Broadway; the southern boundary of the study area; flows naturally into the commercial area between Hemlock Street and Burrard Street.

A.9 SUB AREAS





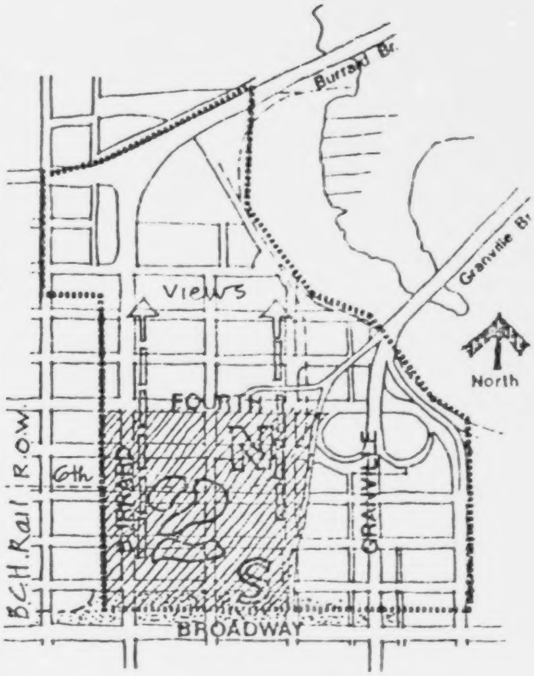
Sub Area I False Creek Plateau

III. SUB-AREAS

As discussed earlier the Study-Area is not a unified cohesive element of the city fabric, having evolved in response to different pressures overlapping into it from adjacent areas, and being traversed by several strong, visually divisive transportation routes. For purposes of analysis, it has been found useful to divide the area into a number of sub-areas. There are a variety of criteria upon which such a subdivision could be based, such as existing zoning or land-use; but it has been found most useful to base it upon identifiable physical elements and common geographic characteristics. These sub-areas are as follows:

Sub Area 1. False Creek Plateau.
65.55 acres (26.53 ha) gross area
This sub-area comprises the most northerly portion of the study-area; bounded by the Burrard Bridge and Cornwall Avenue on the north, Cypress Street and the zone-boundary west of Burrard on the west; False Creek Comprehensive Development District on the east and Fourth Ave. on the south. Topographically it is virtually flat, and lies at the lowest elevation of the study area. It is zoned predominantly industrial, with a small area of commercial zoning on the west side of Burrard, and the north side of First Avenue between Cypress and Burrard. The industrial character has, however, been eroded substantially by the intrusion of office, service-commercial and retail uses.

The built form of Sub Area 1 is essentially one of one and two storey buildings with a larger massing of taller and bulkier structures toward the end of Burrard Bridge. Because of its flat topography, views from the area are not an issue. However, by being at the base of the slope, developments within it could affect views to the north from the upper slopes. Except for the major buildings around Seaforth Park there are few elements which could be characterized as landmarks. The slight north slope of the land and the strong circulation routes along the south and west, tend to orient sub-area 1 toward FCCDD area 10 and Granville Island. The western edge, especially near Seaforth Park, blends naturally into the Kitsilano residential area.



Sub Area 2   Pine Street Slopes

Sub Area 2. Pine Street Slopes.

44.93 acres (18.18 ha) gross area

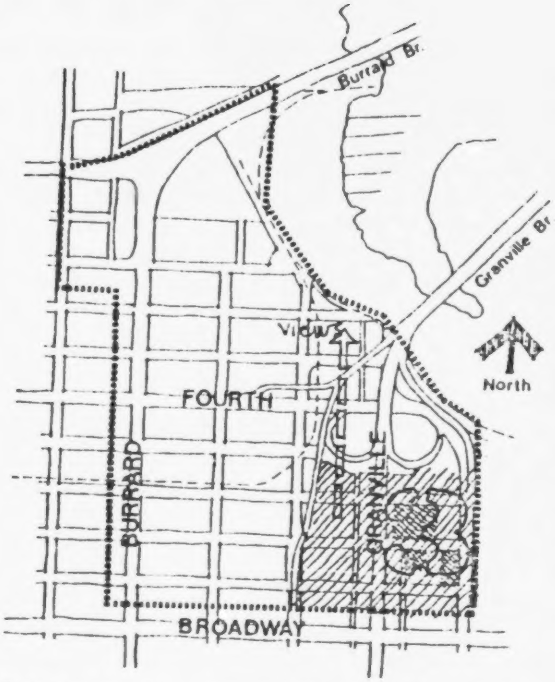
This sub-area is characterized by the north-facing slope lying between Fourth Avenue and Broadway, with its view potential. As is Sub Area 1, it is bounded within the study area by strong traffic elements: Burrard Street, Fourth Avenue and the Fir Street off-ramp of the Granville Bridge. The south boundary is the same as for the overall study area, being the lane between Eighth Avenue and Broadway. South of Seventh Avenue the existing zoning is C-3A, while to the north it is M-1 (Industrial) with the exception of the block bounded by Sixth, Seventh, Burrard and Pine which is zoned CD-1, Comprehensive Development. The boundary between the two major uses has been blurred between Sixth and Seventh Avenues with office uses replacing industrial. The sub-area is bisected in the E-W direction by the B.C. Hydro Rail R.O.W., which is contiguous to the north side of Sixth Avenue. Together the street and railway create the effect of a combined right-of-way width of 124 feet, effectively dividing the sub-area into a northern and southern half. These halves have been assigned the nomenclatures of 2-N and 2-S respectively.

The built form of Sub Area 2N and the north edge of 2S are characterised by one and two storey structures. Further south and up the slope more permanent three storey buildings exist culminating in a few five and six storey buildings along Broadway. The major permanent, good-quality buildings are concentrated in Sub Area 2S. Along this southern boundary of the Study Area both form and use merge with the Broadway commercial strip. These upper slopes provide the best potential for public and private views to the north. Development in Sub Area 2N and Sub Area 1 are important factors in preserving these views.

Sub Area 3. Granville Business.
35.83 acres (14.5 ha) gross area

This sub-area, which occupies the remainder of the study area, is divided from sub-area 2 by the strong form of the Fir Street ramp; and focuses on the commercial development along Granville Street. It is characterized by a north-facing slope providing good view opportunities across False Creek to the downtown peninsula and the north shore mountains. South of Seventh Avenue, the zoning is C-3A, and this zoning has also been extended northward along the Granville Street frontages as far as the cloverleaf approaches to the bridge. The remainder of the sub-area is zoned M-1 Industrial.

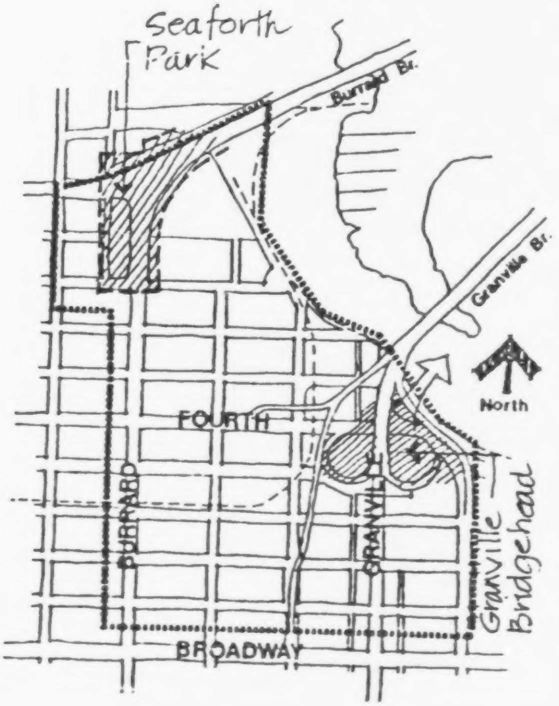
The built form of the sub-area is dominated by the bulk of the Pacific Press Building and the Masonic Lodge which, with developments along Hemlock Street, tend to form a barrier to the east and orient the area north and north-west. While the area has some sections of low development, both in physical terms and in intensity of use, particularly in the north-west portion; it does contain several permanent, good-quality buildings, as well as those mentioned above, and several significant older buildings.


Burrard Br.
Granville Br.
Views
North
FOURTH
BURRARD
GRANVILLE
BROADWAY

Sub Area 3 Granville Business

Special Study Areas

Two areas have been designated for special consideration because of their urban design potential. Seaforth Park represents a valuable open space that should be retained and capitalized on. Granville Bridgehead is unique in its strong form, and the link it provides to Granville Island.


Seaforth Park
Burrard Br.
Granville Br.
North
FOURTH
BURRARD
GRANVILLE
Granville Bridgehead
BROADWAY

B CITY & REGIONAL CONTEXT

B.1 PUBLIC GOALS

Planning proposals for a finite area such as the South of Granville Island Study Area must be prepared within the context of the larger-scale plans of the City and Region within which the study area is situated. Accordingly, the consultant team has documented the planning goals of the City and Region to provide a framework for evaluating alternatives and for selecting preferred options. The total list of goals is too extensive for inclusion at this stage in the report and so is provided in the appendix; but essentially the following three-stage hierarchy of goals is established:

(a) Greater Vancouver Regional District Goals

(b) City of Vancouver Goals

(c) "Core Area" goals for the City of Vancouver

(a) Regional District Goals

The Greater Vancouver Regional District adopted the "Livable Region Plan" in 1975, and in 1981 undertook a program to update the Plan. In November of 1981 the G.V.R.D. Planning Department as part of this process, prepared a list of "Public Livability Objectives" which, though not formally adopted, have been utilized by the consultant team as being representative of current Regional Planning goals.

(b) City Goals

In 1978 the City Planning Commission conducted an intensive public-involvement process that culminated, in 1980, in the publication of a document entitled "Goals for Vancouver". This very extensive document established ...."an articulated direction and purpose so that the residents of the City have a clear understanding of what the community values and is trying to accomplish." This document provided the consultant team with its source of City Planning Goals.

(c) "Core Area" Goals

The City Planning Department has defined as the "Core" of the City the area bounded by Burrard Inlet and English Bay to the north, Larch Street to the west, Seventeenth Avenue to the south and Nanaimo Street to the east. The Study Area occupies a strategic location within this area. As part of its current "Coreplan" program, the City Planning Department, in the July 1981 issue of "Quarterly Review", presented a set of goals, based upon those in the "Goals for Vancouver" document, but condensed and modified to be more relevant to the core area. This list of goals has been utilized by the consultant team as representing "Core Area" goals.

B.2 LOCAL AREA CONCERNS

To identify major issues and concerns pertinent to the study area, the consultant team endeavoured to establish contact with individuals, organizations and public agencies deemed to have an interest in the area. This process included written correspondence, personal interviews and group and public meetings.

Organizations and agencies contacted included:

- Staff members of the City Planning, Engineering and Property Departments
- City of Vancouver, False Creek Development Group
- City Planning Commission
- Vancouver Parks Board
- Vancouver School Board
- G.V.R.D. Staff
- Urban Transit Authority
- Granville Island Project Office (CMHC)
- B.C. Hydro Rail
- South Granville Merchants Association
- Kitsilano Chamber of Commerce

A summary of the responses of the organizations and agencies that responded formally is provided in the table below.

Interest or Concern	Agency/Organization					
	Parks Board	School Board	False Creek Dev.Gp.	Granville Isl. Proj. Office	Granville Merchants	Kitsilano Chamber of Commerce
Traffic		*	*	*	*	*
Parking		*	*		*	*
Continue seawall to Vanier Park	*		*			
Residential use as a probable option		*		*		
Preservation of views			*			*
Enhance 'human' scale						*
Improve landscaping				*		*

The principal reaction of the City Planning Commission was that the present industrial uses within the area make a useful contribution to the City's economy and should therefore be retained if at all possible.

The Economic Development Office stressed the importance of ensuring that economic viability is taken into account in any proposed zoning changes. Reference was also made to the attractiveness of Vancouver to international land investors, whose activities are influenced more by long range potential than by current zoning. The existence of this type of investor within the marketplace tends to negate efforts to hold down or depress land values through adherence to 'down-zoning'.

Contact with individual property owners and tenants was established through a public meeting held on April 6, 1982 in the Planetarium Auditorium, which was attended by an estimated 200 persons. At this public meeting, sixteen clearly defined verbal briefs or presentations were made, and extensive dialogue ensued. The briefs may be summarized as follows:

11 briefs declared the present industrial zoning to be economically non-viable, due to excessively high land values.

7 briefs declared traffic and parking to be a problem, with Granville Island considered the principal source of the problems.

4 briefs considered office/commercial to be an appropriate future use.

3 briefs considered apartment/residential to be an appropriate future use.

2 briefs declared industrial zoning to be inappropriate due to narrow streets and lanes, and small lots.

1 brief noted that high property taxes make businesses uneconomic.

1 brief recommended strict policing of parking restrictions.

C LAND-USE ANALYSIS

C LAND USE ANALYSIS

This section of the report relates civic and regional goals to the physical, economic and social forces acting within and upon the study-area, in order to derive recommendations for the area's land-use component.

C.1 RELEVANT ISSUES

(a) Housing versus Office Development

One of the dominant issues in planning for the future of Vancouver's core is the imbalance between Office and Residential zoning. At the present time, there is already sufficient land zoned for Office use within the core to accommodate approximately a fourfold growth in office employment, while residentially zoned land is already filled to almost 90% of the city's capacity.

A recent Planning Department publication notes that " . . . . If there are no significant changes in our standards, then very shortly nearly all employment growth at the Vancouver centre will have to be served by residential growth in locations quite distant from that centre. That growth, and the commuter demand which it will generate, could further crowd the already congested crossings of the Fraser River and Burrard Inlet, could exert pressure for additional urban development on precious Fraser Valley farm land, and may require heavy additional public expenditure on transportation."[1]

A similar message is conveyed in a recent G.V.R.D. Planning Department report prepared to examine the impact of B.C. Place. This report includes a conclusion that ". . . . Downtown Vancouver residential development has a significant effect in moderating transportation demand, not only within Vancouver, but also across suburban screenlines. About two additional downtown dwelling units are required to balance the increase in transportation demand generated by one additional downtown job."[2]

Figure 3 The 1980s

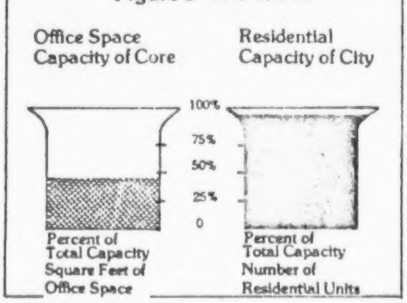
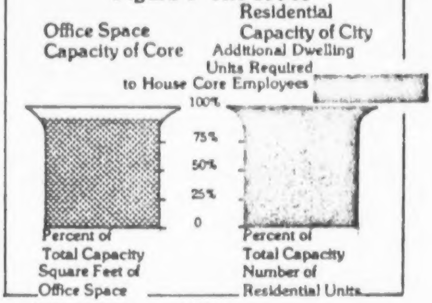


Figure 4 The 1990s



6 Quarterly Review, April 1981

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[1] Droettboom, Ted, "Core Office Growth and City Residential Development," Quarterly Review, Vancouver City Planning Dept., April 1981, p.4.

[2] Kellas, Hugh, "Regional Transportation Impact of Downtown Vancouver Growth," Report to G.V.R.D. Planning Committee, Vancouver, B.C. April 1/82, p.9.

Given the current over-abundance of core-area land zoned for office use, the relative scarcity of land zoned for residential use, and the transportation problems posed by this imbalance, there is no civic public interest to be served in allocating more core-area land to office development, whereas it is in the City's interest to try to make additional land available for housing.

(b) Industry

The general role of industry in Vancouver, and more particularly the provision of an adequate supply of industrial land, has received considerable attention from various civic agencies, including the Planning Department and the Vancouver Economic Development Office. These agencies have identified a growing shortage of industrial land in Vancouver, accelerated in recent years by the rezoning to other uses of land formerly zoned for industry, with much of this rezoning having occurred in the False Creek basin.

Accordingly, industrial land is becoming increasingly expensive, suitable sites are becoming increasingly hard to find, and the City is at an increasing disadvantage in competing with suburban communities and other cities for new industries, as well as for the retention of existing ones. This is contributing to a relatively declining role for industry within the City's economy, with a number of possible consequential negative effects. These include:

- A loss of job opportunities for blue-collar workers residing in the city, who may be forced to commute longer distances to suburban jobs, or to relocate their place of residence to the suburbs.

- The loss of locational advantage for firms who require or desire a central-city location for such reasons as inter-firm linkages, access to central-city markets, or the favourable 'incubator' environment for fledgling firms provided by the many contract services available in the central city.

- A declining diversity of the City's tax base, making it more vulnerable to economic fluctuations within single sectors of the economy.

Therefore, there is an identifiable public interest in maintaining an industrial component within the study area.

However, in keeping with observed trends, this industrial component could be expected to assume an increasingly specialized role, characterized by increasing land-or-space intensity, and by symbiotic relationships with other core-area uses. This new or evolving industrial role would be comprised primarily of establishments that either:

- provide support services to the office and retail component of the core such as printing shops, office supply wholesalers, computer and data-processing firms, automobile sales and service firms catering to core-area employees, etc., or,
- derive special benefits from a core-area location such as an existing custom millwork firm that specializes in interior fixtures for offices and retail stores, and an optical laboratory that is conveniently located to derive trade from optical professionals throughout the city's core and west side.

(c) Retail

The Vancouver Core

Vancouver's retail-commercial structure consists essentially of the Central Business District (i.e. 'Downtown'), and a pattern of neighbourhood centres established in ribbon fashion along the major arterial streets. Much of this structure developed during the 'streetcar era' preceding the Second World War. In the post-war years, newer automobile-oriented shopping centres have tended to draw substantial amounts of trade away from these older centres, undermining their economic viability.

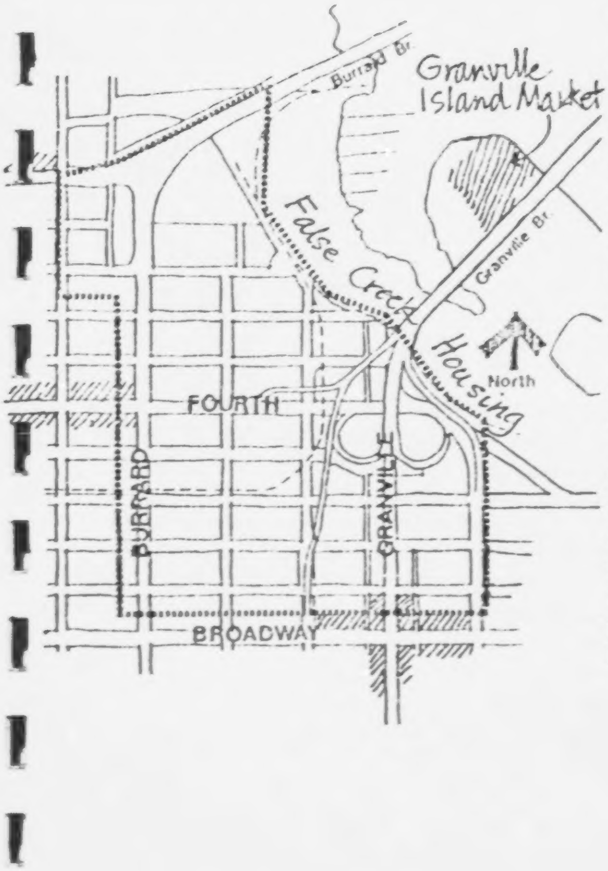
Various actions to preserve and enhance existing retail centres have been initiated by the City and by business associations, including provision of off-street parking structures in the C.B.D. and rezoning to accommodate higher residential densities in the vicinity of neighbourhood centres.

Moreover, the recent "Goals for Vancouver" program established the following goals relating to the retail commercial pattern of the City:

- "Improve downtown Vancouver so that it meets the objective of being a central place of regional activity, enjoyment, and a showplace of pride.
- Develop downtown Vancouver as an attractive, economically viable, transit-oriented core of the region.
- Preserve and enhance the character of unique commercial areas in the City of Vancouver."

These actions and goal statements are clear indications of a civic interest in strengthening the economic viability, and improving the physical quality of the City's existing retail areas. Therefore, any proposal to establish a substantial new retail component within the study area would run counter to civic objectives by creating competition that would draw trade away from existing centres.

However, if new housing is accommodated within the study area, then this, together with the 1,200 dwelling units completed and/or being planned in adjacent areas of False Creek would establish a residential population requiring a range of local retail and personal service facilities. Although commercial establishments do exist already within walking distance of these potential retail customers, in the form of the Granville Island Market, these establishments function in a unique, region-serving role as an exciting 'people place' rather than as a purely neighbourhood shopping centre providing banks, pharmacies, hardware stores, dry cleaners, clothing and drygoods, shoe repairs and other day-to-day requirements.



The encouragement of some new retail space within the study area, preferably along the established commercial strips of 4th Avenue and Granville Street, would serve the needs of the growing residential population, and at the same time, provide an opportunity to renew the aging building-fabric of these existing commercial areas.

(d) Service-Commercial

To the extent that this term is used to describe 'personal services' such as dry cleaners, beauticians or barbershops, it is felt that no differentiation should be made between these land uses and the local retail facilities discussed above. The two have the same locational requirements, exert the same kinds of positive and negative influences on their surroundings, and serve the same clientele.

Therefore, the policies proposed for local retail facilities should apply to personal service establishments as well; and the two could more conveniently be discussed together under the single heading of 'retail and personal service.'

When the term 'service commercial' is considered in the context of uses other than 'personal services' such as automotive uses, nurseries and lumberyards, then different circumstances prevail. Such uses tend to be space-extensive, disruptive of pedestrian continuity and incompatible with more passive uses because of noise, fumes and vehicular movement. Therefore, they are more appropriately planned and regulated in much the same manner as light industry rather than as a form of commercial use.

If industrial is accorded a future place within the study area, then the range of permitted uses could be expanded to include some space-extensive and auto-oriented service commercial activities. If not, then such service-commercial, if permitted at all, would have to be carefully controlled, both locationally and environmentally, to minimize conflict with other uses.

The argument in favour of including some service-commercial facilities within the study area is as a convenience to persons living or working within the core. If all service-commercial activities disappear from the core, then residents and employees will have to travel excessive distances to conduct such basic transactions as having their cars tuned or getting an estimate for body work.

C.2 LOCAL AREA GOALS

From the above review of relevant planning issues, a set of local area land-use goals have been derived to provide the foundation for the subsequent development of the land-use component of the Study-Area Plan. These local area goals, and the overall civic and regional goals to which they relate are as follows:

GOAL 1

MINIMIZE FUTURE OFFICE DEVELOPMENT BY LIMITING IT TO:

- *INFILL OF ESTABLISHED OFFICE AREAS...*
- *AREAS WHERE SPECIAL SITE CHARACTERISTICS WARRANT IT...*
- *PROVISION OF FACILITIES REQUIRED AS ANCILLARY TO OTHER USES...*

Relevant City and Regional goals are those that seek to reduce the current imbalance between Office and Residential zoning, which is intensifying the City's and Region's commuter problems. These are expressed as:

- Reduce time spent travelling to work, (City).
- Minimize the time, cost and inconvenience of travel to work and shopping, (Regional).

GOAL 2

ENCOURAGE THE DEVELOPMENT, IN SUITABLE LOCATIONS, OF NEW RESIDENTIAL ACCOMMODATION, OF APPROPRIATE DESIGN AND DENSITY.

This is the opposite side of the coin to Goal 1, in that it seeks to reduce the imbalance between Office and Residential zoning. Relevant City and Regional goals are:

- Reduce time spent travelling to work, (City).
- Minimize the time, cost and inconvenience of travel to work and shopping (Regional).

- Increase the choice of housing types, tenures, price and locations, (City).

- Enhance the supply of housing for people of all income levels in all parts of the Region (Regional).

GOAL 3

PERMIT ACCOMMODATION OF INDUSTRIAL AND SERVICE-COMMERCIAL USES THAT WILL BE COMPATIBLE WITH OTHER USES WITHIN AND ADJACENT TO THE STUDY AREA; THAT PROVIDE SUPPORT SERVICES TO OTHER CORE-AREA USES; AND/OR THAT DERIVE BENEFIT FROM A CORE-AREA LOCATION.

Relevant City and Regional goals are:

- Provide more and varied (white and blue collar) employment opportunities (City).
- Encourage growth where it will lead to the expansion of housing and employment opportunities but ensure management of such growth so that the quality of life and the character of the city are maintained (City).
- Enhance economic development which does not detract from the region's quality of life (Regional).

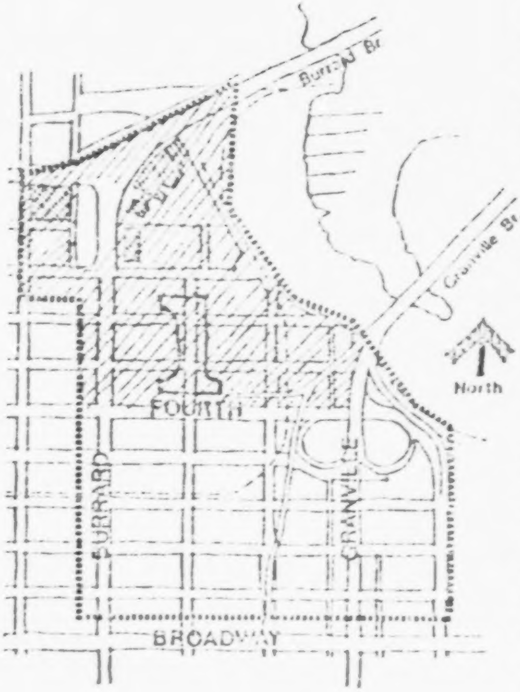
GOAL 4

REVITALIZE FOURTH AVENUE AND GRANVILLE STREETS WITHIN THE STUDY AREA, AS PEDESTRIAN ORIENTED SHOPPING AREAS, BY ENCOURAGING DEVELOPMENT OF NEIGHBOURHOOD-LEVEL RETAIL AND PERSONAL-SERVICE FACILITIES.

Relevant City and Regional goals are:

- Preserve and enhance the character of unique commercial areas in the City (City).
- Improve the pedestrian environment throughout the City (City).
- Integrate landmarks, heritage areas, commercial centres and other features of local importance into the future development of the Region (Regional).

C.3 LAND-USE OPTIONS SUB AREA 1



Within Sub-Area 1, several elements have been identified as being 'fixed in place' throughout the time span of this report (say 15 to 20 years). These include Molson's Brewery, the Seaforth Armoury Building and adjacent parade square, Seaforth Park and the new Chemetics Building (former Coca-Cola plant). These elements all lie north of First Avenue and collectively comprise 83% of the total net site-area of the land north of First Avenue. In fact, only two properties north of First remain uncommitted to future use; the 'Bekins/Kelly Douglas' property west of Seaforth Park, and the 'Osborne Propellor' property on the north side of First bounded by the Seaforth Armoury, Molson's Brewery and the False Creek Comprehensive Development District. Both of these properties have been the subject of Development Permit applications in recent months.

Accordingly, within Sub-Area 1, it is the area lying between First and Fourth Avenues that is of principal concern in determining future land-use policies. Essentially, this area comprises eight city blocks east of Burrard, plus the fringe of the study area west of Burrard. Determination of optimum future land-use policies for this area involves a synthesis of three factors: civic and regional goals, economic forces and the inherent physical characteristics of the site.

The goals presented earlier in this chapter indicate that the predominant land-use should be either residential or industrial, or a mixture of the two; with the inclusion of retail and personal service uses for infill and renewal of the existing commercial frontages along Fourth Avenue.

The critical eight block area defined above is currently zoned M-1 Industrial and has been for many years. Therefore, at first glance, it would appear that at least one of the promulgated local area goals, that of accommodating industry (Goal 3) could be achieved by merely leaving things as they are. However, a more detailed analysis of existing conditions and trends indicates that mere retention of the status quo will not satisfactorily serve this purpose in the years to come.

As noted earlier in this Section (page 63) major reasons for endeavouring to preserve central city industrial lands are:

(a) To provide employment for city resident blue collar workers,

(b) To diversify the City's tax base as a hedge against fluctuations in single sectors of the economy,

(c) To provide 'incubator' space for new industrial activities.

The analysis of existing land-use presented in Appendix A pages 160-164 indicates that the study area is not really performing an important role in these respects. In support of this contention, the following points are presented:

(a) The principal use in the area is warehousing and storage, which occupies 58.1% of the net site area of M-1 zoned lands in Sub-Area 1. Of all industrial activities, this is the least labour intensive. Therefore, the area cannot be considered a significant generator of blue collar employment.

(b) Proximity to, and interdependence with, C.B.D. businesses, is a major factor influencing industrial (particularly warehousing and storage) activities to locate in the study area. Accordingly, if the economic sectors operating within the C.B.D. experience a downturn, this will be experienced also in the study area. Therefore, the M-1 lands in Sub-Area 1 are not contributing significantly toward diversification of the City's tax base.

(c) Only 5.7% of the net site area of M-1 land in Sub-Area 1 is being used for all other forms of industry except storage and warehousing. At least some of these industrial activities are present for historical reasons (i.e., their owners bought in the area when land was relatively cheap). Therefore, if the area is playing an 'incubator' role at all, it is very minimal.

In spite of Industrial zoning, over one-third of the net site-area of this portion of the study area is in non-industrial use. Moreover, it has witnessed little in the way of new development in recent years, and of the little that has occurred, the most significant buildings have been those built for non-industrial purposes (e.g. original Chemetics Office Building, N.E. corner of 2nd and Burrard; Emilio's Restaurant, south side of 2nd Avenue between Fir and Granville). In summary, market trends are making the area increasingly less attractive for industrial development.

A review of land values indicates that the industrially zoned land within the Study Area is the most expensive industrially zoned land within the Region. (See Appendix E, page 187). This is due to the Study Area's proximity to the Central Business District which of course exhibits the highest land values in the Region; and were it not for the Industrial Zoning, values in Sub-Area 1 would be significantly higher than they are at present. An example of the strong downward pressure which the M-1 zoning is exerting upon land values may be seen where Seventh Avenue acts as the boundary between the M-1 and C-3A zones. Based on 1982 assessment data, land on the north side of the street (zoned M-1) has an average value of approximately $23.00 per sq.ft., while for land immediately across the street (zoned C-3A) the average value is $68.00 per sq.ft.

The desirable location of Sub-Area 1, due to its proximity to downtown, is exerting a strong upward pressure on land values, while the existing industrial zoning is acting in the opposite direction to hold values down. The present level of values therefore represents a balance between these two opposing forces, and this level for the past several years has been sufficiently high to discourage new industrial development. This conclusion was further substantiated by numerous briefs submitted at the public meeting; with property owners noting that high land values made development under current zoning non-feasible; and tenants observing that high property taxes based upon land values were forcing up rents and thus eroding the viability of existing businesses.

Because the goals analysis section identified industry as a potential appropriate use, it is essential to examine possible ways of overcoming the market constraints which high land values are placing upon this form of development. Essentially there are three approaches that can be considered. These are:

- Take a firm stand on retaining existing industrial zoning, and wait for the market to 'come to its senses' by reducing land values to an appropriate level.
- Increase the allowable density of industrial development to a level that would make new development feasible.
- Allow non-industrial uses, such as office or residential, as a bonus to industrial use, in order to make new development feasible.

THE 'FIRM STAND' APPROACH

Land values generally throughout the City and Region have tended to stabilize or even decline during the past year, in contrast to the rapid escalation of values experienced in the late 1970s and through the first year or so of the present decade. In a rising market, assessed values tend to be somewhat lower than actual market values, due to the time-lag involved in preparing the assessment rolls. However, discussions with the B.C. Assessment Authority indicate that this year, due to the recent downturn in the market, assessed values and actual market values should be very close to one another.

To test the application of this theory to the study area, the records of recent sales were examined. The results are summarized in tabular form in the Appendix. Basically, outside of the M-1 Zone, sale prices have tended to be actually below assessed value; but within the M-1 Zone they average approximately 50% above. The most plausible explanation for this non-typical situation is that the market is aware that a planning study is underway and has already begun to anticipate a change in zoning to a higher value land use.

However, as noted previously, even before this study was announced, land values in Sub-Area I were too high to support new industrial development. Therefore, to establish conditions conducive to industrial development, civic actions would have to be powerful enough not only to 'wring out' this latest increase in values, but would also have to drive values down below where they had been before this study was initiated.

The underlying theory behind the 'firm stand' approach is that, if the industrial zoning is retained then, over a sufficiently long time period, land values within the study area will decline relative to values throughout the urban economic system, to a level at which new industrial development will become economically viable.

It is the contention of the consultant team that precisely the opposite will happen, and that over the long haul, the gap between market value and residual industrial value will widen.

The classical economic theory of urban land values, depicted by concentric rings on a uniform plane with equal accessibility in all directions is, of course, simplistic. Nonetheless, the underlying principles it seeks to convey are valid. As an urban system expands, the land areas added on the periphery become progressively larger relative to the fixed area at the centre because the circumference of each new ring of growth is larger than that of the preceding ring. Even recognizing all the distortions introduced by irregular geography, uneven transportation routes and zoning, the underlying principle remains valid. Thus, as the urban system expands, sites at and near the centre become relatively more scarce as a function of the total number of potentially available sites; and this scarcity factor operates to accelerate the increase in land values at and near the centre relative to average values throughout the system.

Assuming the Vancouver Metropolitan Area continues to grow, as the consultant team believes it will, then the spread in land values between the central area and the system wide average will continue to widen. Land within the study area, being relatively centrally located, will ride the coat-tails of this general increase in central area land values despite the zoning; although the industrial zoning, if retained, will exert some downward pressure to keep values from rising as high as they otherwise would under some other form of zoning.

The 'bidders' who will sustain this level of land values in spite of the zoning will be primarily those investors who are seeking a safe 'haven' for their money, and whose principal speculation about the future is not over whether or not the zoning will be changed, but rather about whether or not their asset will appreciate in value at a rate at least equal to their perceived opportunity cost.

To such investors, local, national and from overseas, land within the study area has all the attributes of a good investment. It is well located, on the edge of the Central Business District, in a large growing metropolis, with good long-term future growth prospects, in a nation that respects the institution of private property, and in a part of the world relatively non-vulnerable to being overrun by hostile forces.

Therefore, the final effect of a 'firm stand' approach will be to inhibit the entry into the area of those investors having immediate or short-term development intentions, and to limit future ownership more and more to speculators who will be interested only in holding the land as an investment vehicle while meeting their holdings costs from the rental of the existing buildings. When this happens to an area, it tends to gradually deteriorate as the buildings grow older and maintenance is neglected.

THE 'INCREASED DENSITY' APPROACH

It should be noted that the existing M-1 zoning permits an F.S.R. of 5.0, with a maximum building height of 100 feet. The Pacific Press building is the only building of recent vintage that even comes close to matching this configuration. Therefore, if one is to expect a positive market response to an increase in allowable industrial density, this density would clearly have to be in excess of F.S.R. 5.0. However, at its present relatively low level of industrial development (an overall F.S.R. in the order of 1.00), the area is already beginning to experience some difficulty in handling truck traffic. If the industrial development density were to be increased by more than five-fold, these problems would become enormous. For this reason, the concept of increasing the permitted density is rejected.

THE 'NON-INDUSTRIAL BONUS' APPROACH

There has been some consideration by City Hall staff of the possibility of encouraging new industrial development by 'bonussing', which would involve permitting the incorporation of other uses such as offices, residences, or retail facilities into new industrial projects.[1] The higher cash-flows derived from these 'bonus' uses would be intended to offset the relatively lower earnings from the industrial floor space, to produce a combined income-stream sufficiently high to make the overall development economically feasible. It was therefore considered important to investigate the possible application of this approach to the study area.

To do so, a series of simple 'pro-formas' was prepared to estimate roughly what degree of bonussing would be required to produce a more favorable return than can be realized under maximum utilization of existing zoning. These 'pro-formas' may be found on pages 5-8 Appendix E. This process while not providing an exhaustive analysis of all the combinations and permutations that could be considered, indicates that for the bonus technique to be effective under the conditions prevailing within the study area, the amount of office space required as a bonus would have to be in the order of F.S.R. 1.5., within a total F.S.R. of 5.0.

The introduction of such a substantial amount of potential additional office space into the core area runs counter to the goal of trying to reduce the current imbalance between office and residential zoning; and therefore, the use of office bonussing is not recommended.

Residential use, instead of office use, as a means of bonussing would be more consistent with civic goals. However, industrial and residential uses tend to be incompatible and can be successfully mixed only under favourable circumstances. Therefore, a policy which required all new development to contain a mix of these two uses would be extremely difficult to administer, and hence it is not recommended.

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[1] See for example, "An Economic Strategy for Vancouver in the 1980s", Vancouver Economic Advisory Commission, May 1982, p. 9.

For the foregoing reasons, it is concluded that the M-1 portion of Sub-Area 1 presently is contributing only very moderately toward the achievement of civic or regional goals. Moreover, there are substantial market constraints operating to discourage the establishment of new industrial developments, which could be overcome (if at all) only by measures that would run counter to other civic goals. It is therefore recommended that the present M-1 zoning be replaced by new zoning that will more effectively promote fulfillment of civic and regional goals within an economically viable framework.

In view of the fact that the accommodation of residential development has been identified as a goal, (Goal 2), it is logical to investigate the appropriateness of applying some form of residential zoning within Sub-Area 1.

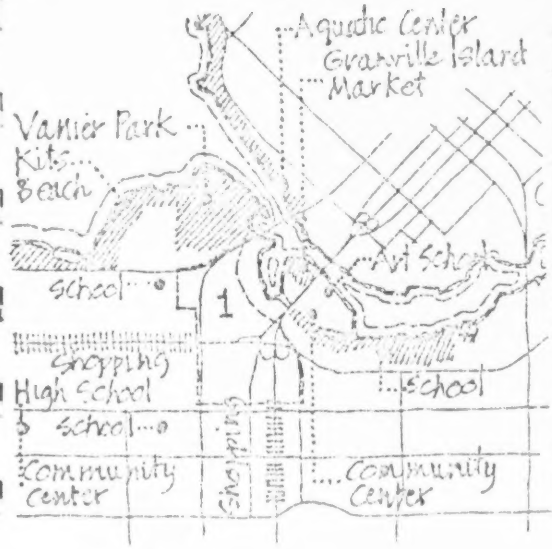
An examination of statistics for properties developed for rental apartments under RM-3B zoning immediately to the west of the study area boundary indicates an average assessed land value (1982) of $85.00 per sq.ft. This is approximately 30% above the value for typical C-3A property within the study area and more than double the value of M-1 property.

Until the advent of the current recession, the residentially zoned lands adjacent to the study area have experienced over the years a relatively vigorous rate of new building construction, indicating that land values and zoning are quite compatible within these areas. Because assessment records indicate that land values within the industrially zoned portions of the study area are currently lower than in the adjacent RM-3B zone, it can be concluded that the application of similar multiple-family zoning to the presently industrially zoned lands would encourage new development, given a return to more normal economic times.

Both 'goal related' and economic factors indicate the appropriateness of multiple-family residential development within Sub-Area 1, but physical or locational factors must be considered as well.

Due largely to several recent developments around the study area, Sub-Area 1 has many positive features which make residential use an attractive option. These include the following factors:

The residential development and public amenity of False Creek and Granville Island offer a firm residential base well served with facilities and services ancillary to housing. False Creek has pedestrian-oriented amenity areas, a large city park, elementary school and daycare facilities. Granville Island provides, as well as its shopping function, centrally located community centre, tennis courts and public parks.



The proximity to Vanier Park provides access to another large city park with shoreline access to Kitsilano Beach. Vanier Park also contains established civic amenities in the planetarium, museums and city archives. This amenity area will be readily accessible with the completion of the False Creek sea wall.

Within a half mile zone, residents would have access to shopping areas at Fourth Avenue and South Granville, as well as Granville Island. The Sub-Area is well served by public transit with bus lines along Fourth Avenue and Granville Street, and the False Creek and Granville Island routes. Residential developments could fit into an already well developed base of public amenity and residential support facilities.

The analysis of the characteristics of surrounding residential neighbourhoods indicates that there would likely be very few families with children locating in the area. However, if there were to be any school-age children, they could be accommodated in Henry Hudson School, which lies just beyond the study-area boundary to the west. Burrard Street would constitute something of a barrier between the school and the proposed residences, but with a signalized intersection at First and Burrard (as discussed in Section D) this barrier would be by no means insurmountable.

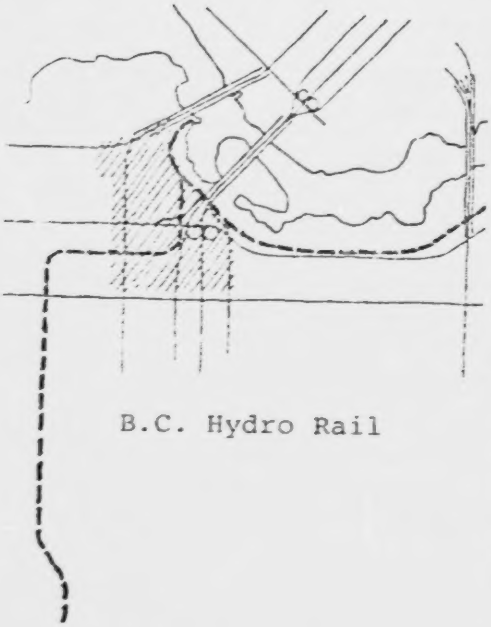
The principal factor opposing residential accommodation in Sub-Area 1 is the negative influence of traffic. In addition to the traffic on the arterial routes of Fourth Avenue, Burrard Street and the Fir Street Bridge ramp, there will be, on the local streets, higher traffic volumes than are normally found on residential streets because of through-traffic associated with Molson's, Granville Island and the False Creek Comprehensive Development District.

With respect to the abovementioned arterials, conditions will be very similar to those along other portions of the same arterials beyond the study area, where the City in recent years has permitted, and in some cases actively encouraged, residential development. For example:

- Burrard Street - Anchor Point Apartments at Burrard and Pacific
- Fourth Avenue - various developments at the base of Fairview slopes
- Bridge Ramp - Area 6 Phase 2, and Area 10B, False Creek Comprehensive Development District

With respect to the local streets, methods are presented in Section D for mitigating the impact of traffic, although it will not be possible to achieve conditions found typically in less traffic-prone areas of the City.

Given that traffic volumes will be above normal for residential areas, it is important that developers and their architects be required to give consideration, at the Development Permit Application stage, to incorporating sound-mitigating techniques into their design, such as the use of singly-loaded corridors, enclosed solariums in place of open balconies, and sound-attenuating walls.



B.C. Hydro Rail

Another potentially negative element is the rail line through the area. Recent problems arising from a temporary condition near the east end of False Creek have focussed public attention on this rail line, resulting in several complaints, with the principal concern being the sounding of whistles at level crossings during the night. This is a problem that persists through the several miles where this rail line passes through residential areas, and it requires a solution on a broad city-wide basis. Proposed solutions include elimination of night-time schedules, installation of signals to replace whistle warnings at intersections, and rerouting of trains via other rail routes. The City and the railroad operators are currently engaged in discussions to resolve this problem and its resolution would prove advantageous to the proposed residential area within the study area, as well as to the other parts of the City where this situation occurs.

A final potential negative element is the existing industrial presence within the area, which might be perceived as an impediment toward redeveloping the area for residential use. However, since most of this industrial development (with the exception of Molson's Brewery) is not production oriented, it causes very little in the nature of negative environmental impacts within the area. Molson's Brewery is the only heavy industrial activity in the study area and, as it is in the northernmost point of the area, it would be on the edge of any proposed residential development. Although the physical scale of the plant is large, the nature of the processing activities does not produce any significant levels of unpleasant noise or smell. Accordingly it could be expected to co-exist with adjacent residential neighbourhoods to the same satisfactory degree as does the Carling-O'Keefe Brewery at Twelfth and Vine. The most serious potential negative impact of the Brewery is its high volume of truck traffic. However, proposals to alleviate this problem are presented in Section D.

SUB-AREA 1 RECOMMENDATIONS

For the foregoing reasons, it is recommended that the future role of Sub-Area 1 should be primarily that of a multiple family residential area, intended principally for the accommodation of members of the downtown labour force. This use would be consistent with the civic goal of reducing the imbalance between office and residential zoning in the core and would be compatible with market forces in the area.

However, in advancing this recommendation, the consultant team does not mean to imply that existing industrial uses within the area are regarded as undesirable elements to be done away with as quickly as possible. The majority are viable operations providing income to owners and employees as well as taxes to the City, and are neither visual eyesores nor environmental polluters.

There is, therefore, no pressing urgency to have the area redeveloped, and the question then arises as to whether the recommended rezoning should be undertaken now, or postponed to a later date. In considering this question, the consultant team has concluded that the rezoning should be initiated as soon as is practical, for the following reason:

If the area is held in its present zoning for a protracted period of time, it will becoming increasingly an area 'in limbo', and more and more properties will pass into the hands of absentee landlords and speculators. To minimize holding costs, maintenance will be increasingly neglected and the area will begin to become blighted.

The redevelopment of the area from industrial to residential will almost inevitably take place over an extended period of time in a somewhat random and unpredictable pattern, due to the widespread ownership of a multiplicity of small parcels. This transitional period will witness many situations of new apartments juxtaposed with existing industrial buildings. The older and more dilapidated the existing buildings are allowed to become before redevelopment commences, the more reluctant investors will be to risk venturing into the area and the more difficult it will be to get the redevelopment process underway. Conversely, the existing ambience of the area is still relatively pleasant (if uninspiring) and should not prove an impediment to redevelopment.

The process of administering the transition period is vital to the successful realization of the long range plan. If this process consists simply of an abrupt rezoning of the M-1 district to one of the existing Multiple Dwelling Zones, then one of the immediate effects would be to render all the existing businesses in the area as non-conforming uses. Non-conformity can present handicaps to property owners in matters such as temporary closures and limitations on building alterations; and since there is no intent to force premature relocation of viable operations, this situation should be avoided.

To overcome this problem, it is recommended that a new Multiple Family Zoning category be created, under which a range of industrial activities would be permitted as 'conditional uses.' The list of 'conditional uses' should be drawn up to strike an optimal balance between the uses now existing in the area and the type of uses that are most compatible (or least incompatible) with residential use.

One additional advantage to the 'conditional use' approach to accommodating industrial activity is that it allows landowner-operators of existing businesses to redevelop their property while incorporating space within the new development to accommodate their own enterprises. The regulations governing the new zone should include sufficient safeguards to ensure that the newly housed industrial activity would not be incompatible with the adjacent residential uses.

This proposal does not contradict the earlier statements regarding the difficulties of mixing industrial and residential activities. They are indeed difficult to mix. But, under this proposal, mixed-use development would occur only where the developer wished to create it, which is quite a different matter from making it a mandatory requirement that all new development consist of mixed industrial/residential buildings.

The types of activities to be allowed as 'conditional uses' would include wholesaling, warehousing and storage, laboratories, lithography and print shops, photographic studios, film exchanges, sign and showcard shops, health clubs and spas, appliance repairs, furniture manufacturing and repairs, and offices ancillary to any of the above uses. The primary method of minimizing incompatibility would be a requirement that all activities be conducted entirely within a fully enclosed building. Performance standards for the emission of noise, fumes, odours, dust, glare and vibration should also be incorporated.

This zoning approach is somewhat similar to that already established within the Official Development Plan for Downtown in which, subject to conditions and regulations prescribed by the Development Permit Board, 'Light Industrial' uses are permitted to co-exist with Residential, Office and Commercial uses.

For the properties fronting Fourth Avenue, a different form of residential zoning is recommended. Here, although the dominant use would be residential, there should be strong encouragement given to the inclusion of retail and personal service uses, at street level. The intent of this zoning would be to restore and enhance pedestrian street life; and to provide 'neighbourhood level' retail services for the emerging residential population within the study area and in nearly False Creek.

The objectives of the consultant team for this portion of the study area are more or less identical to the objectives set forth in the City's Zoning Bylaw for the C-2C Zone.

Burrard Street is not perceived by the consultant team to have an important role to play as a pedestrian street. Therefore, a mandatory retail component is not proposed along its frontage. However, it is a major arterial street performing an almost ceremonial function, at the scale of the moving automobile, in linking downtown to the city's residential areas to the south and west. Therefore, this frontage offers a high degree of visual exposure which will have considerable commercial appeal. There is no reason to prohibit commercial development from this frontage, and it is therefore recommended that retail uses be permitted as optional uses at street level.

Having established the basic land-use content for the existing M-1 lands, the final step is to establish the recommended density. With respect to market factors, the principal concern is to determine the minimum Floor-Space-Ratio at which one could reasonably expect new development to take place. Factors to be considered in this process are prevailing land values, average suite size, and "what the market will bear" with respect to land-cost-per-suite. Given the current unsettled nature of the real estate market, such a process must inevitably involve the making of certain assumptions about what these factors will be, if and when a healthy real estate market is restored.

The consultant team has developed their own assumptions in this regard, which they believe represent a reasonable 'best guess' about future economic factors, and from these assumptions have developed their recommendation as to optimum F.S.R. However, recognizing that others may have different opinions about the future, the whole process has been set forth in Appendix E so that others, if they wish, may apply their own figures to reach their own conclusions.

The recommended F.S.R. lies within the range of from 1.75 to 2.0. This is roughly similar to the upper limit obtainable through full utilization of the bonus provisions of the RM-3A1 and RM-3B categories of the Zoning Bylaw which apply to lands immediately to the west of the Study Area.

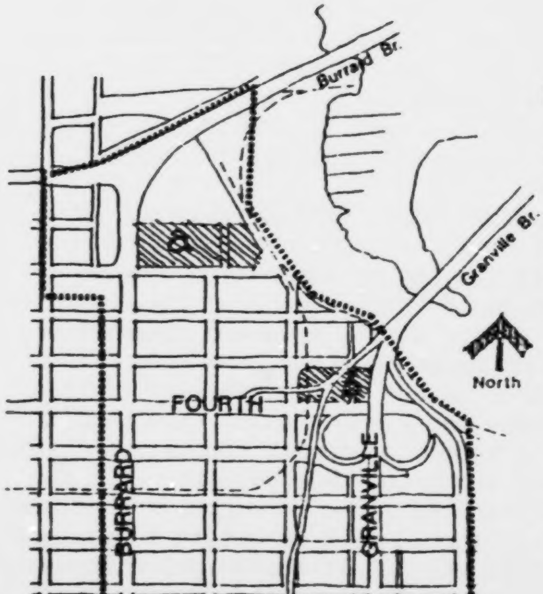
NON TYPICAL SECTIONS

In the process of analyzing alternative land uses for Sub-Area 1, two sections can be perceived as "non typical", exhibiting characteristics that do not quite fit the general rules for the overall sub-area.

These are:

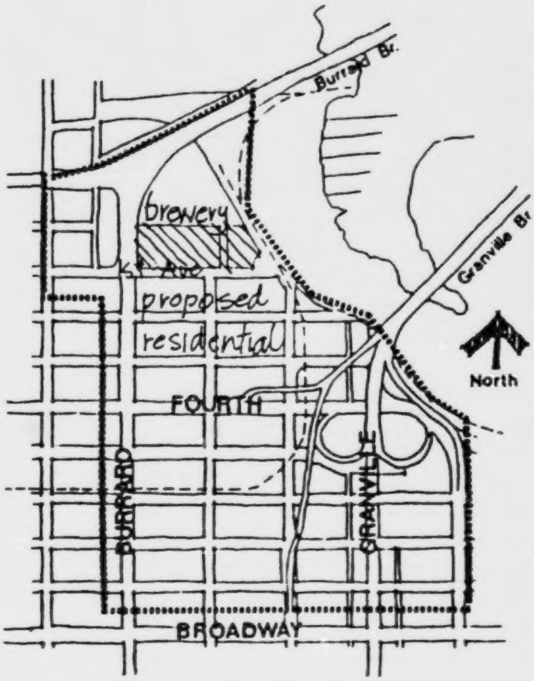
(a) The two block long strip between Molson's Brewery and First Avenue, extending from Burrard Street to the False Creek Comprehensive Development District.

(b) Block 240, bounded by Third Avenue, Fourth Avenue, Fir Street and the Granville Bridge.



Non Typical Sections

(a) First Avenue Strip



The strip between Molson's and First Avenue occupies a zone-of-transition between the Brewery (considered to remain in its present use for the forseeable future) and the area to the south being proposed for new multiple-family residential development. Although the Brewery is not a source of negative environmental influences such as noise or odour, and although the front which it presents to the public is neatly maintained, it is reasonable to expect that a heavy industry such as this will also have an unattractive side. The rear of the property, facing to the south and east, is the locale for such relatively unsightly and noisy activities as the loading and unloading of products and waste materials, and the outdoor storage of materials and equipment; and although hitherto an inconspicuous area, will in the future lie within the foregound of the view from the north-facing residential developments proposed for the south side of First Avenue.

Accordingly, it would be desirable if this strip could be occupied by uses that, for the forseeable future, would serve as a buffer between the industrial and residential uses to either side, but which would also remain compatible with the neighbouring uses if, in the distant future, the Molson property should be redeveloped for another purpose such as residential.

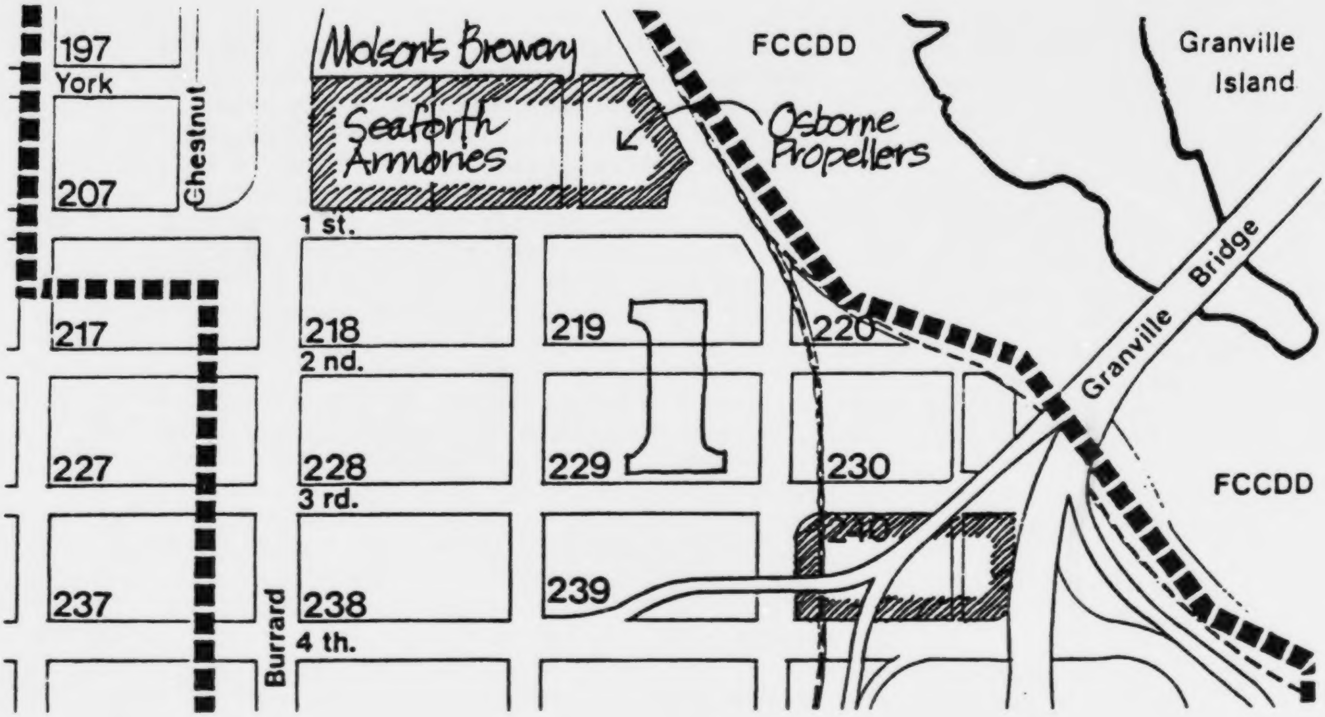
This strip is presently occupied by two separate premises, the Seaforth Armouries which accounts for 71% of the total net site area, and the Osborne Propellor property which accounts for 21.7%. The remaining 7.3% consists of a sixty-foot wide panhandle attached to Molson's property, which provides that site with its vehicular access to the City via First Avenue.

It would be ideal from the City's perspective if the Armouries' property could be obtained from the Federal Government for use as a community centre and park, as this would further enhance the attractiveness and livability of the proposed residential area to the south. No contact has been made with Federal officials to assess the feasibility of this proposal, but if the basic contents of this report are adopted, it is recommended that the City initiate discussions toward acquiring this property. If the Federal Government should prove unreceptive then, as a minimum, the City should seek to obtain a right-of-first-refusal. Moreover, if it should prove impossible to acquire this property then, in its ongoing function as an armouries, it will nonetheless play a useful role as a buffer between the industrial and future residential areas.

With respect to zoning, it is noted that the western half of the Seaforth property (upon which the Armouries building is situated) is zoned C-2 Commercial, while the eastern half occupied by the parade square, is zoned M-2, Industrial. In view of the fact that the general thrust of this report is to minimize the future commercial role of lands in Sub Area 1, and in view of the fact that "Public Authority Buildings" (which presumably includes armouries) are permitted as conditional uses in the M-2 Industrial zone, it is recommended that, as part of the overall rezoning procedures for the study area, the C-2 segment of the Seaforth property be rezoned to M-2. If the City should subsequently be successful in acquiring this property for park purposes, this zoning would remain valid, because Parks and Playgrounds, as well as Public Authority Buildings, are conditional uses under M-2 zoning.

Additionally, if the City is unsuccessful, then at least the right-of-first-refusal would guard against the possibility of the property being sold to private interests without the City's knowledge, and subsequently becoming the subject of an unwanted application for heavy-industrial redevelopment.

The Osborne Propeller property is currently the subject of a Development Permit Application to accommodate a fashion-trade centre or merchandise mart. While not attempting to assume the role of an approval-authority, the consultant team would observe that, from a land-use perspective, the proposal conforms generally to the existing zoning (M-2, Industrial); and, being relatively benign in terms of its external environmental impacts, would serve a useful function as a buffer between industrial and residential uses in the forseeable future while remaining compatible with other potential uses that may eventually succeed the Brewery on the Molson's site in the long-range future. Accordingly, it is recommended that the current M-2 zoning be retained on the site.


197
York
207
Chestnut
Molson's Brewery
Seaforth Armories
Osborne Propellers
FCCDD
Granville Island
1 st.
217
218
219
220
1
Granville Bridge
2 nd.
227
228
229
230
3 rd.
FCCDD
240
237
238
239
Burrard
4 th.

(b) Block 240

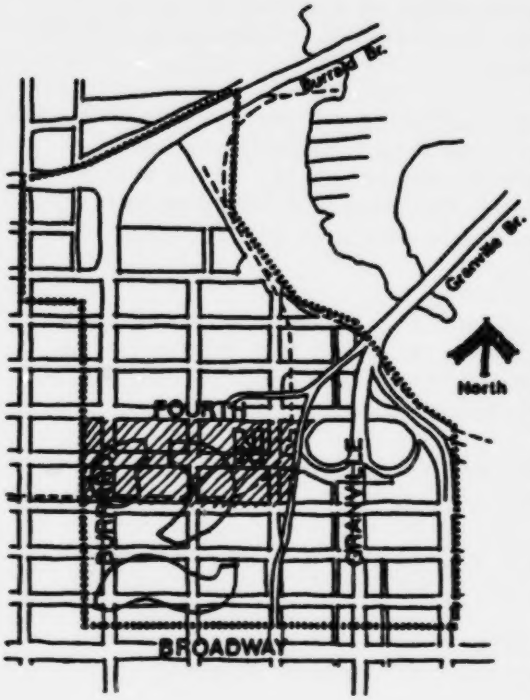
Block 240 is part of the eight-block area within Sub-Area 1, currently zoned M-1 Industrial, which was recommended to be redesignated for primarily residential use. However there are features that make the block somewhat different from the others with which it was associated in the foregoing analysis.

It is bounded by Third, Fourth, Fir and Granville which, although part of the City's regular grid street pattern, function virtually as a component of the cloverleaf system at the south end of the Granville Bridge, providing traffic linkages between Granville Island, Fourth Avenue and the Granville Bridge. The resultant high traffic volumes around its periphery isolate this block from the adjacent proposed residential area.

Additionally, the block is badly cut up into several odd-shaped fragments by the railway and the bridge ramps.

For these reasons, it is considered unlikely that Block 240 would develop successfully as a residential site; and it is therefore recommended that this block be incorporated into the C-3A zoning which is proposed for the contiguous block to the south. (See following discussion for Sub-Area 3).

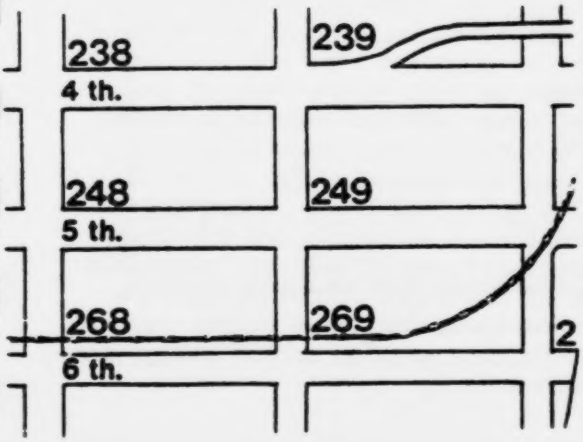
C.4 LAND-USE OPTIONS SUB AREA 2N



Sub-Area 2-N consists essentially of four city blocks bounded by Burrard, Fir, Fourth and Sixth, plus the narrow strips of property fronting the west side of Burrard and the east side of Fir between Fourth and Sixth. These four city blocks, which comprise over 80% of the total area of Sub-Area 2-N, are presently zoned M-1, Industrial, and therefore might be considered to be contributing toward the fulfillment of Goal 3 (the accommodation of industry). However, as was the case in Sub-Area 1, the actual level of industrial activity is relatively low in spite of the industrial zoning.

Within these four blocks (Blocks 248, 249, 268 and 269) only 27% of the net site area is devoted to industrial use, with 31% comprising vacant sites and rights-of-way, while 42% is devoted to a variety of non-industrial uses including office, automotive, retail, parking and residential.

As was the case with Sub-Area 1, land values in Sub-Area 2-N have risen to a level which discourages the entry of new industrial developments and encourages the departure of existing firms. For example, within the past year, Chapman Industries, one of the largest industrial firms in the study area, have relocated to North Delta and have sold their half block property in Block 269 to the City.



In the process of analyzing land-use options for Sub-Area 2-N, it has been concluded that essentially the same public-policy issues and economic factors are operating here as in Sub-Area 1. In terms of public-policy issues, industrial use, residential use, or a mix of the two would be appropriate, but because of economic factors, residential is favored as the dominant land use.

In terms of locational or physical factors, there are some differences to be acknowledged between Sub-Area 2-N and Sub-Area 1. Sub-Area 2-N is somewhat further removed from the social and recreational amenities of False Creek and Vanier Park, reducing its attractiveness as a residential area in comparison with Sub-Area 1. However in compensation it is more favorably located with respect to retail and personal-service facilities, enjoying proximity to Broadway and South Granville as well as to Fourth Avenue. Public transit service is better than for Sub-Area 1, due to closer proximity to the many routes along Broadway, and this could be further enhanced if the concept plans for A.L.R.T. along Sixth Avenue should materialize.

Although it is not anticipated that residential developments in this area would accommodate many families with school-age children, it is worth observing that both Tennyson and Henry Hudson Elementary Schools are within a half-mile of Sub-Area 2-N.

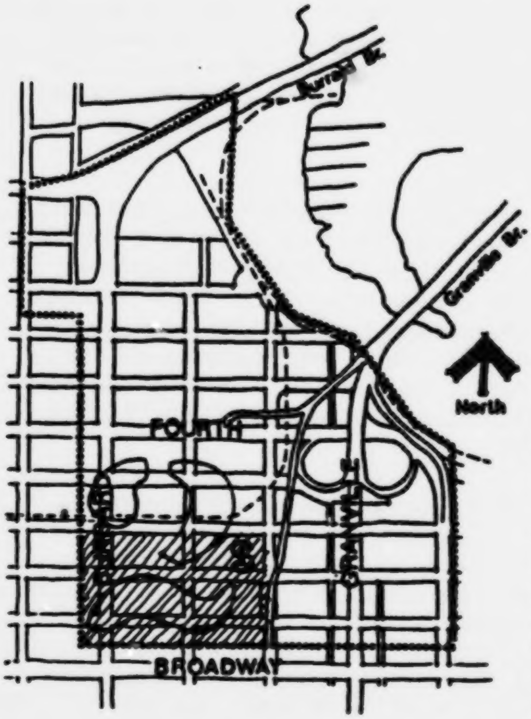
SUB-AREA 2N RECOMMENDATIONS

For the foregoing reasons, it is recommended that the future zoning for Sub-Area 2-N should be the same as that previously recommended for Sub-Area 1. The basic elements of this zoning are:

- predominant use to be multiple-family residential.
- recommended retail/personal service uses on ground floor along Fourth Avenue.
- optional retail/personal service uses on ground floor along Burrard Street.
- light industrial and service commercial uses permitted throughout as conditional uses.
- maximum F.S.R. in the range of 1.75 to 2.0.

The narrow band of properties between Fir Street and the Fir Street ramp from Fourth to Sixth Avenue, is the one exception to this recommended zoning. Here it is proposed that the land use should be the same as that to the east of the Fir Street ramp. Although the ramp is a strong physical element dividing the properties on either side, it is sufficiently high above the ground to facilitate ground level continuity of land use and pedestrian activity; and encouragement of this continuity would help to reduce the divisive impact of the ramp. Accordingly, the land use recommendations for these properties are discussed later in this section in the paragraphs pertaining to Sub-Area 3.

C.5 LAND-USE OPTIONS SUB AREA 2S

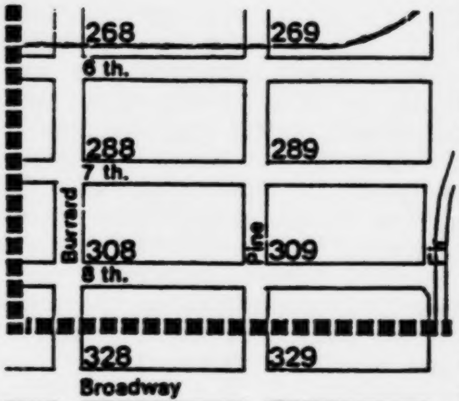


Sub-Area 2-S consists of:

- Four whole blocks bounded by Burrard, Pine, Sixth and Eighth (Blocks 288, 289, 308 and 309).
- Two half-blocks bounded by Burrard, Pine, Eighth and the lane between Eighth and Broadway (i.e. north half of blocks 328 and 329).
- The properties fronting the west side of Burrard, from Sixth to midway between Eighth and Broadway.

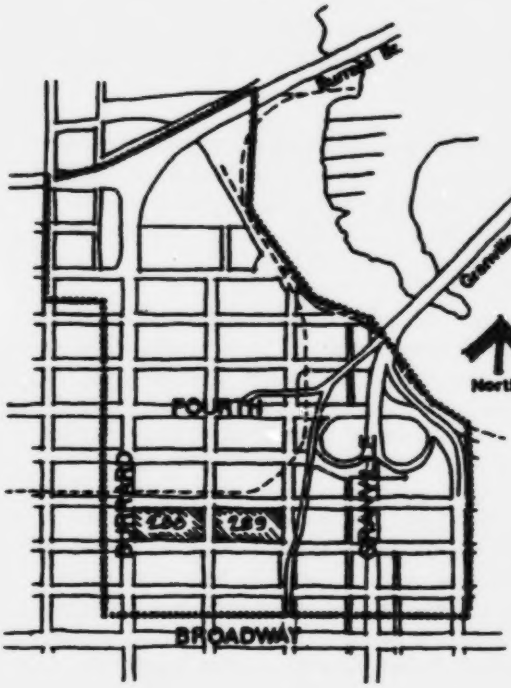
Within this area there are presently three different zoning categories: C-3A, CD-1 and M-1; with the C-3A category covering approximately 64% of the total net site area, and the other two categories each covering approximately 18%.

The C-3A area covers all the land south of Seventh Avenue including the frontages on the west side of Burrard, and is a component part of the larger C-3A zone along central Broadway and South Granville. This zoning category permits a very broad range of uses, including retail, offices and dwelling units, with various forms of light industrial and automotive activities allowed as conditional uses; and with densities being allowed up to F.S.R. 3.0. Within sub-area 2-S the dominant use being made of this zoning category is office accommodation, but with automotive uses occupying the east frontage of Burrard and older single-storey retail uses occupying the west frontage.



With the exception of these latter properties, virtually all of the C-3A lands within Sub-Area 2-S are occupied by relatively new, good quality purpose-built office buildings. Additionally, proposals have recently been submitted for new office developments conforming to C-3A zoning to replace several of the retail and automotive uses along Burrard. These facts indicate that the present zoning represents a very good 'fit' between existing public-policy and existing private sector perceptions regarding the preferred land use for this particular segment of the study area.

As noted above, the C-3A portion of Sub-Area 2-S is already an integral part of the Central Broadway Commercial District, which is the second most important commercial area in the City.* Given its location near the geographic centre of this important viable commercial area, and given its strong commitment of recently constructed, good quality development, the C-3A portion of Sub-Area 2-S is recommended to be retained in its existing zoning to ensure the infilling of its few remaining underdeveloped sites.



The remaining two blocks within Sub-Area 2-S which are not presently zoned C-3A lie along the northern edge of the Sub-Area, between Sixth and Seventh Avenue. Thus they occupy what could be described as the zone of transition between the area to the north, which the consultant team recommends for future predominantly residential use, and the area to the south, which is recommended to be retained as C-3A Commercial.

At the present time, these two blocks possess quite different characteristics. Block 288, bounded by Sixth, Seventh, Burrard and Pine, is completely vacant, is consolidated as a single lot under single ownership, and is zoned CD-1, Comprehensive Development. Immediately to the east, Block 289, bounded by Sixth, Seventh, Pine and Fir, contains a mixture of uses, is subdivided into twenty-one separate parcels with fifteen different owners, and is zoned M-1 Industrial.

It is rare to find an entire vacant block under single ownership in a relatively central location such as Block 288. The property was assembled and cleared for development purposes, and was granted CD-1 zoning in 1974. Since then, several preliminary Development Permit applications have been submitted, primarily for mixed commercial-residential developments. These proposals have sought to capitalize on the site's many advantages which include a northerly view-potential, prestige frontage along Burrard Street, proximity to established commercial properties to the south and proximity to the potential rapid-transit station at or near Sixth and Burrard.

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*The G.V.R.D. publication "Commercial Centres in the Lower Mainland", March, 1980, indicates that "Central Broadway" from Macdonald to Fraser contained, as of that date, 5,195,000 sq.ft. of commercial floor space, compared with 23,630,000 sq. ft. in the Central Business District.

Within Block 289, a breakdown of land use by site-area is as follows:

Warehousing & Storage	39,600	sq.ft.	33.3%
Manufacturing & Processing	6,000	"	5.0
Office	27,000	"	22.7
Parking	11,400	"	9.6
Residential	28,968	"	24.4
Vacant	6,000	"	5.0
	118,968	sq.ft.	100.0%

The residential content, which is much higher than average for the study-area, consists entirely of very old frame buildings, survivors of the area's first period of growth. By way of contrast, the office component consists of two purpose-built multi-storey office buildings of recent vintage, which are the only properties where the assessed value of improvements exceeds the value of the land.

In formulating land-use recommendations for these two blocks, which occupy the transition-zone between the proposed residential area to the north and the commercial area to the south, three possible alternatives suggest themselves:

(a) incorporate into residential area to the north,

(b) incorporate into commercial area (C-3A) area to the south,

(c) treat separately from areas to either side.

The recommended option is to incorporate these two blocks into the C-3A area to the south, because they relate much more closely to this area than to the lands to the north. The combined widths of the street and railway rights-of-way create a substantial barrier to land-use continuity along the Sixth Avenue alignment, which is further accentuated by the complete absence of property frontages along the north side of Sixth.

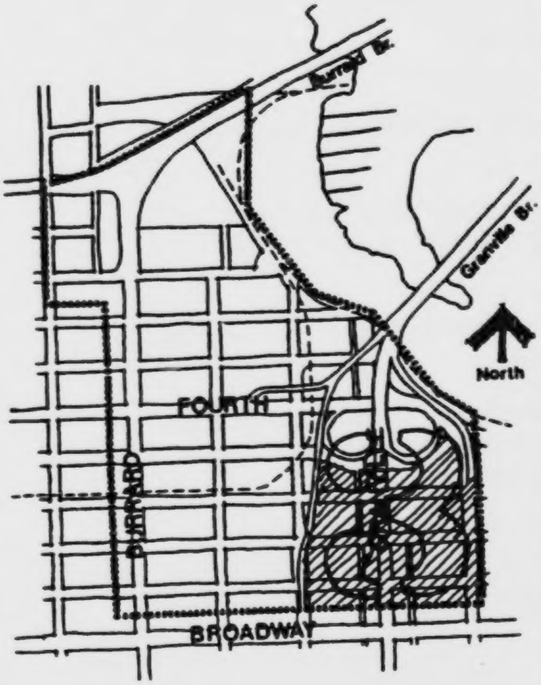
In other words, Sixth Avenue makes more sense as a zone-boundary than Seventh Avenue. There are no significant factors suggesting that these two blocks merit being treated separately from the surrounding area, and a comparison of recent development proposals for Block 288 with that which can be achieved under C-3A zoning indicates that removal of the present CD-1 zoning in favor of C-3A zoning would not adversely affect the ability to capitalize on the development opportunities of this site.

SUB-AREA 2S RECOMMENDATIONS

In summary, it is recommended that the C-3A zoning which presently terminates at Seventh Avenue be extended one block further north, to terminate at Sixth instead.

It should be noted that C-3A zoning permits residential uses and certain non-polluting light industries. Using that zone would permit residential uses where appropriate and allow some acceptable industries to remain until relocation was convenient.

C.6 LAND-USE OPTIONS SUB AREA 3



This sub-area has four well defined boundaries, the Fir Street ramp to the west, Hemlock Street and ramp to the east, the Granville Bridge cloverleafs to the north, and the Broadway commercial strip to the south; and is focussed on Granville Street which acts as a north-south spine through the area.

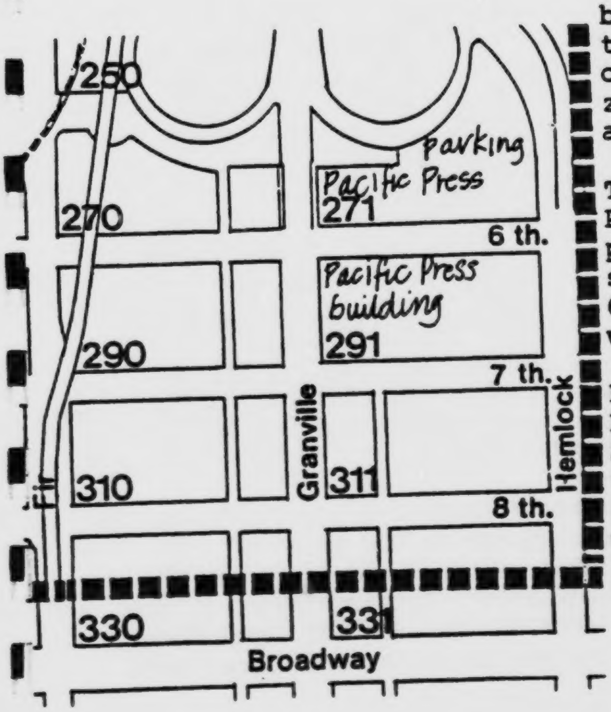
The area comprises six whole-blocks (blocks 270, 271, 290, 291, 310 and 311) plus two half-blocks along its southern edge (the north halves of blocks 330 and 331). Within the area there are presently two different zoning categories: C-3A and M-1. The C-3A zoning covers all the land south of 7th Avenue, plus the properties fronting Granville Street north of 7th, and accounts for roughly 58% of the total net site area; while the M-1 zoning applies to the remaining 42%.

As was the case in Sub-Area 2-S, the land covered by C-3A zoning is quite heavily committed to office and retail uses consistent with the existing zoning, with several buildings being of very recent vintage, and with development permits having been recently submitted for other fully conforming development proposals.

Given the well established character of the existing C-3A properties, the continuing interest being shown for further C-3A development, and the area's prime location virtually at the centre-of-gravity of a much larger overall C-3A zone, it is recommended that the existing C-3A area be retained in its present zoning.

The industrially-zoned lands are dominated by the Pacific Press development, whose building and parking lots (including leasehold service station) occupy two entire blocks comprising 65% of the total four-block area of M-1 land within this sub-area.

Except for the block occupied by the Pacific Press Building (Block 291) the industrial lands within Sub-Area 3 are substantially underutilized for their intended purpose, with only 32% of the net site area being occupied by industrial uses, while 56% of it is in parking lots and vacant land. The remaining 12% is divided among office,



automotive, and retail-and-service commercial uses. Moreover, only one small industrial building has been constructed in the past decade.

Because of:

- its current underutilization for industrial purposes,
- the inhibiting influence which high land-values have upon future industrial development,
- the physical constraints imposed by sloping topography, and
- accessibility problems caused by traffic on adjacent streets and by narrow or non-existent back lanes,

it is concluded that the industrially zoned portion of Sub-Area 3 is not presently contributing in a significant way to the fulfillment of public goals, and is unlikely to do so in the future.

Accordingly, it is recommended that the current zoning be changed to a form of zoning that will be more conducive to goal fulfillment.

A review of the local area goals presented earlier in this Section would indicate that some form of residential zoning might be appropriate, but there are serious constraints to such zoning in this area. The three blocks available for redesignation (Block 291 being 'fixed' by the Pacific Press Building) are isolated from any adjacent existing or proposed residential area by strong physical elements; the bridge approaches to the north, east and west; and extensive areas of commercial zoning to the south. Being isolated from adjacent residential areas, and being too small to stand on its own as a residential neighbourhood, this area is deemed to be inappropriate for zoning to a dominantly residential use.

SUB-AREA 3 RECOMMENDATIONS

It is therefore further recommended that the C-3A zoning currently established to the south of Seventh Avenue be extended northward as far as the bridge approach cloverleafs. This zoning would not, of course, totally preclude residential development, as dwelling units are permitted as conditional uses under C-3A zoning.

C.7 SUMMARY OF LAND-USE RECOMMENDATIONS

The recommended land-use pattern for the study area may be summarized as follows: Refer to Map 10, page 96.

(a) Existing M-1A "Industrial" zoning for Block 197 (new Chemetics Bldg., formerly Coca-Cola Bottling Plant) to be changed to CD-1 to rationalize the zoning category.

(b) Current mixed residential-commercial proposal for Block 207 to be encouraged since it conforms to the general recommendations of the study (formerly Bekins Storage Building).

(c) Existing M-2 "Industrial" zoning to remain in place for all properties north of First Avenue and east of Burrard; and with the present C-2 zoning of the Seaforth Armouries Building Site to be redesignated to M-2.

(d) A new zoning category to be created to apply to all land between First Avenue and Sixth Avenue, west of Fir Street; and to include also Block 230 on the east side of Fir Street between Second and Third Avenue. Principal characteristics of this new zoning category to be:

- . basic use-multiple family residential
- . permitted conditional uses-light industrial and service commercial
- . strongly recommended retail content at street level frontages of Fourth Avenue
- . retail uses permitted as conditional use at street level frontages of Burrard Street
- . maximum F.S.R. = 2.0

(e) C-3A "Commercial" zoning to apply to all properties south of Sixth Avenue; and to all properties between Third Avenue and Sixth Avenue east of Fir Street.[1]

(f) Seaforth Park and Granville Bridgehead to be designated as Public Open Space.

(g) B.C. Hydro Rail Lands to be added to Vanier Park.

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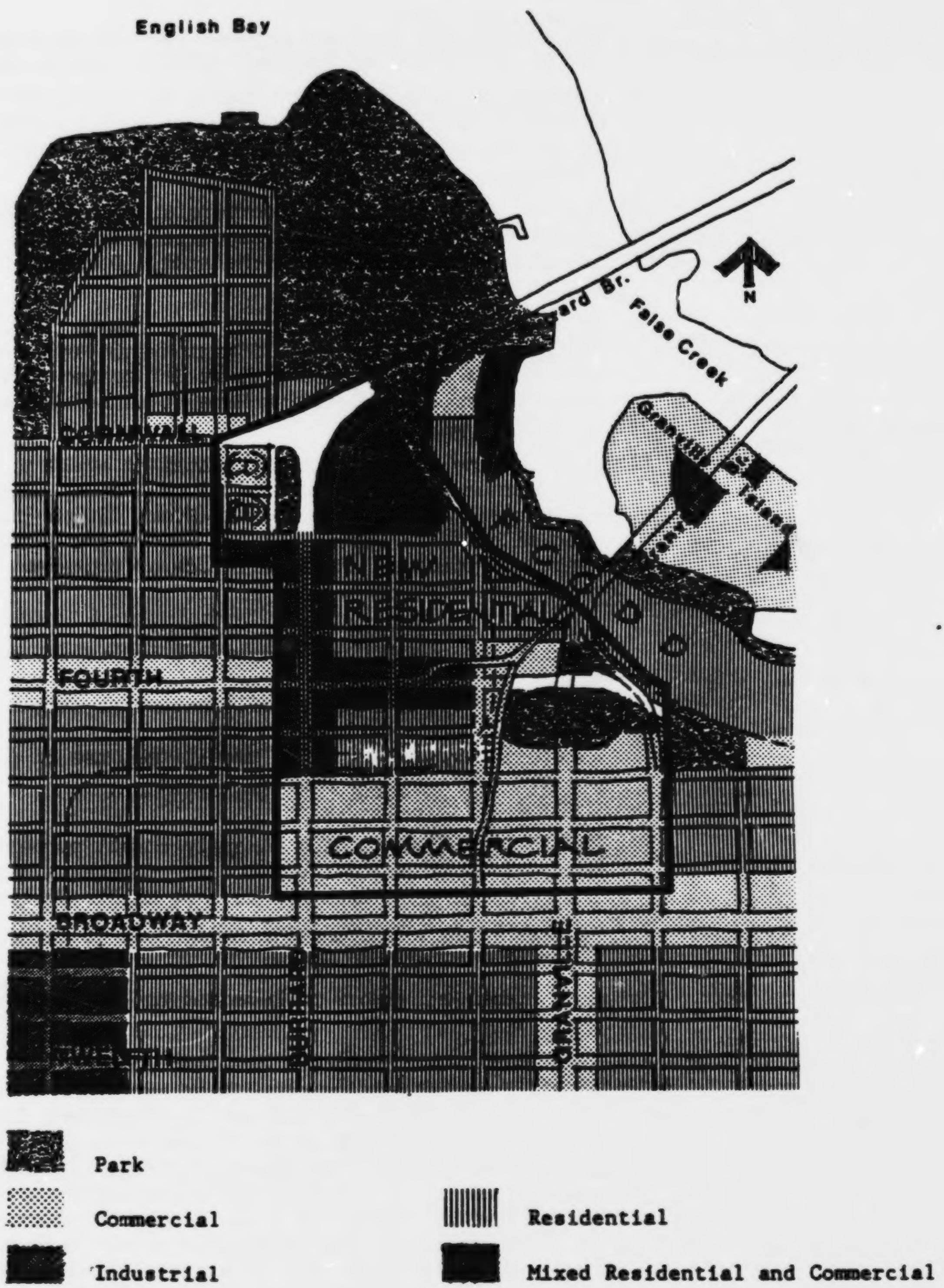
[1] The use of the current zoning category C-3A Commercial has been adopted for convenience since in most cases the recommendations propose an extension of adjacent existing C-3A areas. This zone as presently defined is convenient for the purposes of this study since it allows a broad range of uses from clean light industrial to residential which will offer the chance for suitable light industries to remain and for residential to be incorporated where appropriate. The scope of this study does not permit the design of a new zoning category. It is recognized that there may be deficiencies in the provisions of the C-3A zone which relate to city-wide issues. If in revising this zone, the Planning Department were to make substantial changes, especially in the range of permitted uses, the appropriateness of its use would have to be reviewed.


English Bay
Burrard Br.
False Creek
N
Granville Island
CORNWALL
NEW RESIDENTIAL
FOURTH
COMMERCIAL
BROADWAY
GRANVILLE
Park
Commercial
Residential
Industrial
Mixed Residential and Commercial

SOUTH of GRANVILLE ISLAND STUDY TWGG consultants

PROPOSED LAND-USE

MAP 10

D CIRCULATION ANALYSIS

D.1 ISSUES

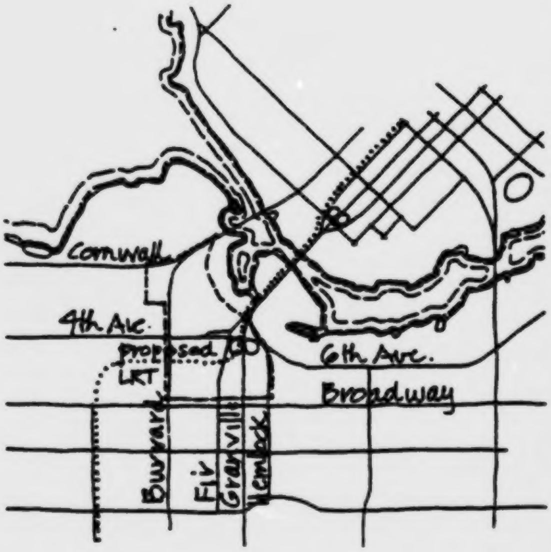
This section analyzes movement systems within and immediately adjacent to the study area in order to derive recommendations for the various internal systems and arterial routes.

a) Arterial Routes

Because of its location at the edge of the downtown the Study Area must respect the through traffic function of arterial routes.

b) Through Traffic

As an entrance to the rapidly filling western end of FCCDD and Granville Island the Study Area should provide for the various movement systems and aid the resolution of the secondary traffic system developing around False Creek. One of the positive features of the Study area, the light traffic load on internal streets, should be retained.



Traffic System

c) Public Transportation

The present local transit system which provides good service should be retained and full advantage should be taken of the proposed LRT line.

d) Pedestrian Movement

Although pedestrian routes are not presently important within the study area full advantage should be taken of pedestrian movement generated by new developments and peripheral systems such as those in FCCDD.

e) Parking

Parking provisions must be adequate for the land-uses proposed within the Study Area and recognize the imposition of demands from adjacent areas.

f) Trucks

Since Molson's Brewery and Ocean Cement on Granville Island will remain within the time horizon of this Study truck traffic needs to be routed to minimize conflicts with non-industrial land uses.

D.2 CIRCULATION ANALYSIS

MAJOR STREETS

As the study area developes no change in the characteristics of the major circulation routes is forseen. Burrard and Granville, both streets and bridges, will still perform the same functions of linkages with the Downtown. With the increasing importance of Granville Island and FCCDD more direct access to and from the downtown would be an asset. One improvement would be access off the south-bound Granville Bridge cloverleaf to 5th Avenue at Fir St. similar to the bus route. Broadway will be increasingly the major east-west corridor for traffic and transit. 4th Avenue as part of the 2nd-6th-4th route, will increase in volume as developments grow along it.

MINOR STREETS

Internal streets will remain roughly as they are now with minor modifications, e.g. width of pavement. Although extensive changes to traffic circulation around the Burrard Bridge approaches appear premature, some relatively straightforward improvements to Vanier Park access could be achieved by use of the B.C. Hydro Rail lands. Two options seem available. One is to extend Creekside Drive either north or south of the BCCCU Office building, under the bridge and into the park. The other is to turn Fir Street north of 1st Avenue parallel to the Osborne Propellor and Molson's Brewery properties and under the bridge at the former location of the storage sheds. More detailed study would be required to determine the detailed needs and exact location. This latter option has the advantage of providing direct access for trucks from the brewery to Fir Street, thus avoiding the present turn onto 1st Avenue from the access strip. Even without this road proposal the access to the brewery could be kept off 1st Avenue by a land swap to provide a road along the N.E. of the Osborne Propellor site.

TRANSIT

Again no major changes are anticipated in the local bus system with the exception of an extension of the False Creek loop to service FCCDD area 10 and Vanier Park. With the development of Burrard Street as an extension of its downtown component a bus service over the Burrard Bridge south to Broadway seems inevitable. The result will be an area intensely serviced with good linkages to all parts of the city. The introduction of rapid transit over the Granville Bridge and along 6th Avenue will provide a link to Richmond and indirectly through the downtown interchange to Burnaby, New Westminster and Surrey. This will reinforce the southern portion of the study area as a secondary employment centre.

PARKING

With the introduction of new developments each containing the required by-law parking and the enforcement of parking regulations, parking will become less of a concern. The situation will be on a par with other similarly zoned areas of the city. Since the area will be well-served by transit the need for private vehicles will be moderated somewhat. The problem of the overflow parking from Granville Island, which occurs on weekdays as well as weekends, should be resolved at its source. New developments on Granville Island must accommodate parking demands on the Island. On weekends the use of the excess capacity of the study area streets north of 4th Avenue for parking spill-over from Granville Island will not be as easy when the area is redeveloped as residential even in part. However, the use of sites within the study area for parking lots or garages to serve Granville Island does not seem practicable. Any possible sites are too far from the Island for walking and people would not pay for such parking, something which would be necessary unless the affected merchants were taxed to pay for the facilities.

PEDESTRIAN AND BICYCLE MOVEMENT

The increases in development within the study area will bring a corresponding increase in general pedestrian movement. Major retail-pedestrian movement will continue on Granville Street and will develop along 4th Avenue extending the pattern existing west of Burrard Street. With the further growth of Granville Island, Anderson Street will become a more intensive pedestrian way drawing on the fully developed FCCDD and the residential area north of 4th Avenue. This same pedestrian link will also connect the Granville Street bus exchange and the rapid transit station to the Granville Island and False Creek amenities. The pedestrian link from FCCDD to Vanier Park, already established in principle will be completed. Current proposals which maintain pedestrian access through developments above the N.H.B. Facilities can be extended, possibly skirting the end of the rail line with the trestle gone and follow the natural grade to the edge of the marina. That will likely be the only provision for bicycle paths within the study area.

TRUCKING

With the gradual reduction in the amount of industry in the study area, heavy trucking will also diminish leaving the two major contributors: Molson's Brewery and Ocean Cement; much as is the case now. The Molson's trucks will probably continue to use the First and Burrard intersection, a move which they have already instituted. To keep the Molson's trucks out of the proposed residential area north of 4th Avenue would require more significant improvement to the south end of the Burrard Bridge and development of a new route to the north of Molson's site. The Ocean Cement trucks would continue to use Anderson Street with its improved linkages to 4th Avenue, particularily via Fir Street.

GENERAL TRAFFIC ASPECTS

As the study area redevelops, particularly north of 4th Avenue, and Granville Island and FCCDD are completed, traffic demands in and through the area will increase. Currently, one access point is signalized (Fir and 4th) providing controlled access opportunities and making provision for heavy left-turn demands exiting the area. With increased development additional "guaranteed"/controlled access may be necessary to meet the demands. Consideration of additional signal control on the adjacent arterials should focus on a location that would result in routing patterns with minimum impact on the residential area. The signalization of Burrard Street at 1st Avenue would seem to be appropriate and could likely be achieved in synchronization with the Burrard Street at Cornwall Street signalizing thus avoiding an increase in stops for northbound traffic. However further study would be required to assess the impact of such a proposal on adjacent neighbourhoods. If this designation of First Avenue as the major route from Burrard Street to FCCDD and Granville Island were accompanied by such controls as no left turns off Burrard Street southbound and stop signs at Second and Third Avenues at Pine Street the effect of the through traffic north of Fourth Avenue could be mitigated.

D.3 CIRCULATION RECOMMENDATIONS

1. Retain the present arterial routes; Granville Street and Bridge, Burrard Street and Bridge and the 4th-6th Avenue east-west connector.
2. Discourage indiscriminate through traffic by establishing and/or reinforcing specific routes such as the Fir Street, Third Avenue access to Granville Island and First Avenue and Fir Street as access to FCCDD Area 10.
3. Recognize the growth of FCCDD Area 10 and the potential of Vanier Park by extending Fir Street and/or Creekside Drive under Burrard Bridge, but not so as to cater to through traffic.
4. Maintain the Fourth Avenue, Granville Street and Cornwall Avenue transit routes. Extend the False Creek transit loop to serve FCCDD Area 10 the adjacent residential developments proposed within the Study Area and the Vanier Park facilities. When Burrard Street develops into the proposed commercial-institutional strip add a transit connection to downtown across the Burrard Bridge.

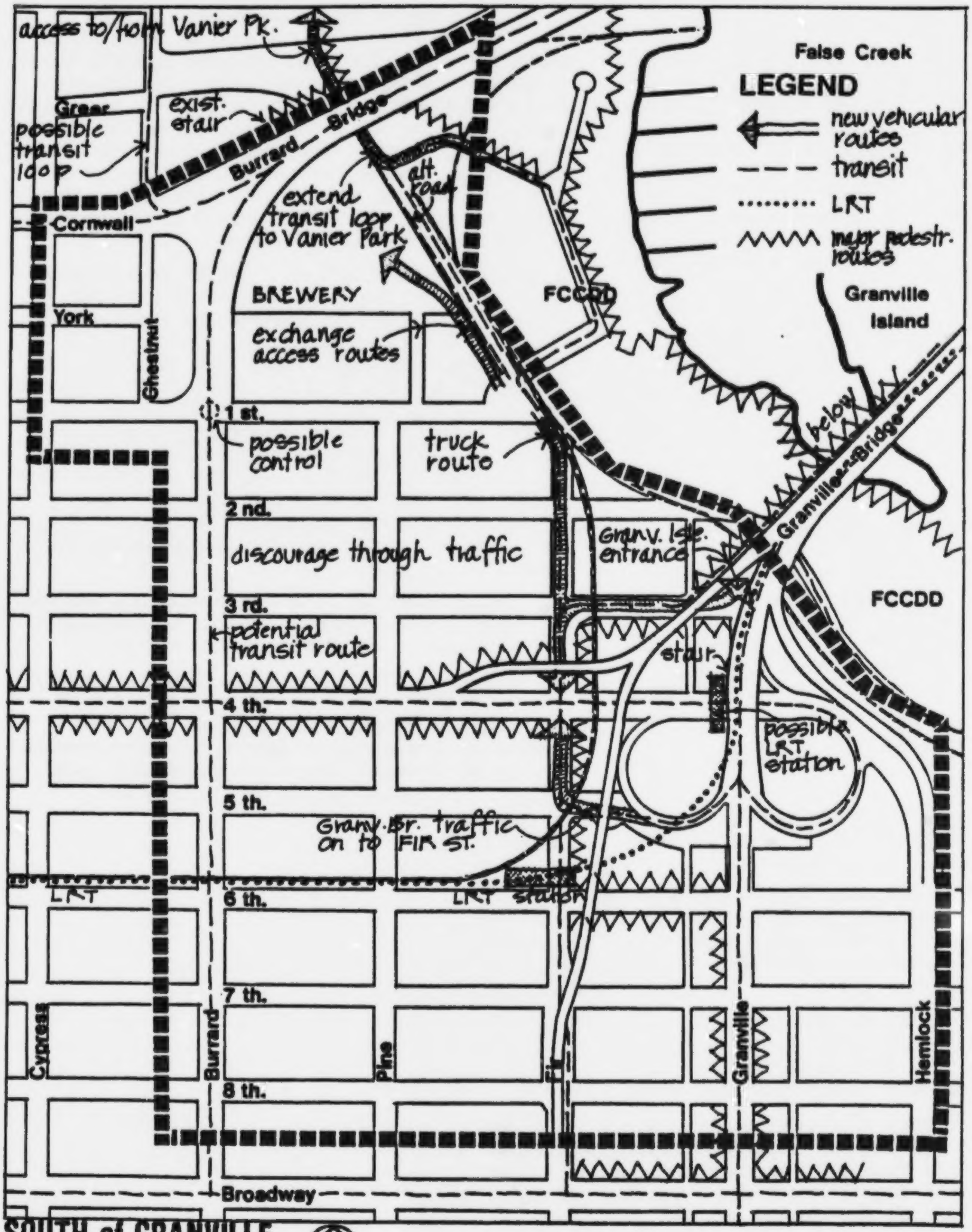
5. Capitalize on the proposed LRT route by locating the station as far east as possible to serve the commercial area and make linkages to the Granville Street local transit interchange as direct as possible. Investigate the possibility of locating the station straddling 4th Avenue where it could provide access to Granville Island and FCCDD. Ensure that the detailed design of the LRT route off the Granville Bridge and along Sixth Avenue minimizes the impact of its negative features on potential development sites.

6. Link the LRT Station-Granville Street pedestrian node with the Granville Island entrance commercial area on Third Street by a pedestrian route. Facilitate pedestrian movement along Fourth Avenue in association with the retail and service facilities to link retail areas on Fourth Avenue west of Burrard Street with the Granville Island entrance area. Provide easy pedestrian access from the proposed residential areas into the False Creek, Granville Island and Vanier Park amenities. Make local streets pleasant for pedestrian movement by careful design of sidewalks and the retention and addition of street planting.

7. Enforce parking by-law standards and provide adequate curbside parking. Refer to Appendix B for alternative for future design studies.

8. Provide a direct route for Molson's Brewery trucks to Fir Street and out to Fourth Avenue. Ocean Cement trucks would also use this route coming in from Anderson Street via Third Avenue. Continue to provide access to and from Burrard Street for brewery trucks at First Avenue.

Refer to Map 11 page 104.


access to/from Vanier Pk.
False Creek
LEGEND
new vehicular routes
transit
LRT
major pedestr. routes
Green
possible transit loop
exist. stair
Burrard Bridge
alt. road
extend transit loop to Vanier Park
Cornwall
BREWERY
FCCDD
Granville Island
York
Chestnut
exchange access routes
1 st.
possible control
truck route
below
Granville Bridge
2 nd.
discourage through traffic
Granv. Isle. entrance
3 rd.
potential transit route
stair
FCCDD
4 th.
possible LRT station
5 th.
Granv. Br. traffic on to FIR ST.
LRT
6 th.
LRT station
7 th.
Cypress
Burrard
Pine
Fir
Granville
Hemlock
8 th.
Broadway

SOUTH of GRANVILLE ISLAND STUDY

TWCG consultants

N

TRAFFIC CONCEPT PLAN MAP 11

E URBAN DESIGN IMPLICATIONS

E URBAN DESIGN IMPLICATIONS

This section deals with the implications of development and explores the likely outcomes and important principles embodied in the report's land-use proposals.

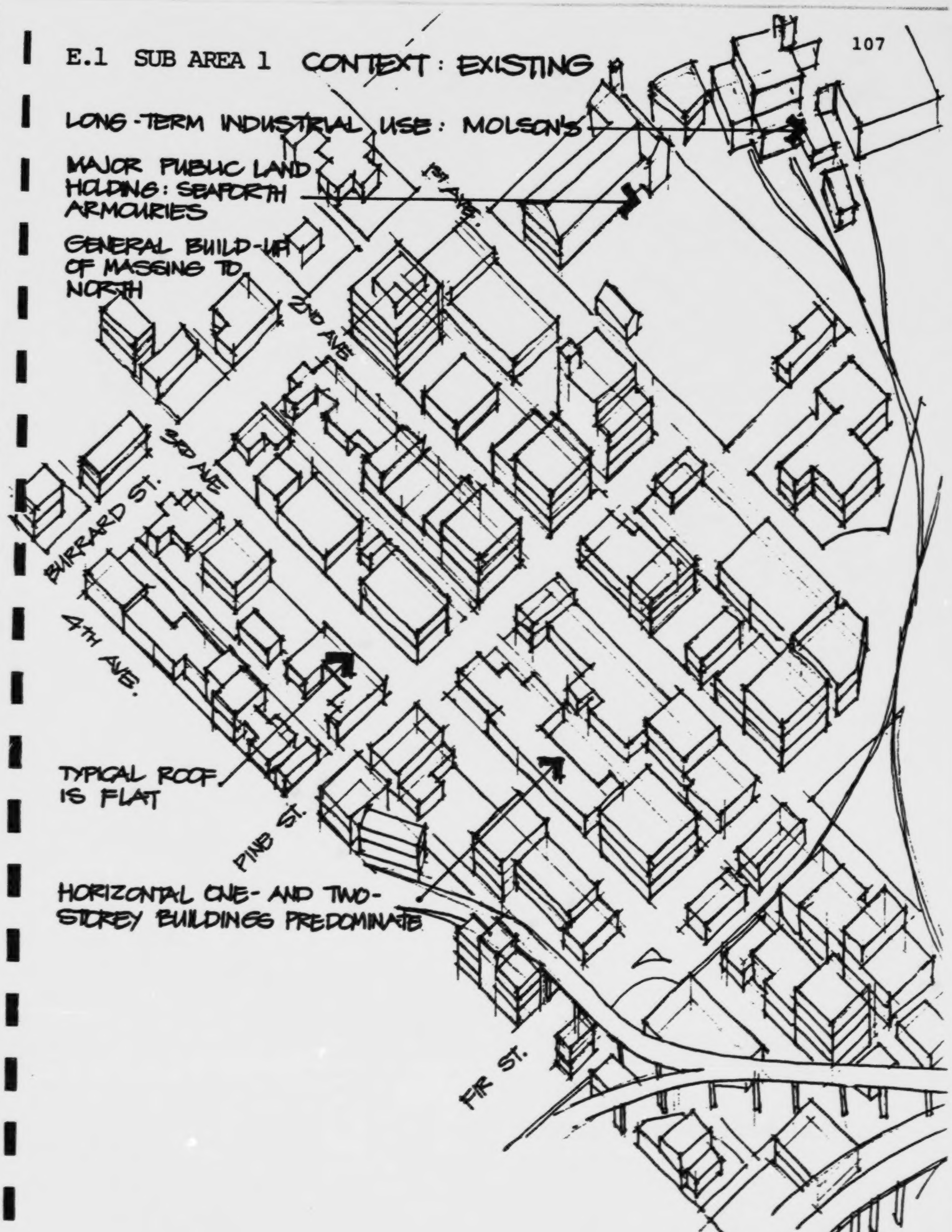
Each sub-area is illustrated in context, Land Use, Built Form, Views and Sun, and, where appropriate, Streetscape, Circulation, and Open Space.

The implications illustrated here are not intended as "Guidelines" for Urban Design; they are directions that any guidelines should consider.

Since the major changes in the Study Area are concentrated in Sub-Area 1, this area receives more attention than the others.

The general appearance of the Study Area as fully redeveloped concludes the section.

E.1 SUB AREA 1 CONTEXT: EXISTING


1ST AVE.
2ND AVE
3RD AVE
BURRARD ST.
4TH AVE.
PINE ST.
FIR ST.

LONG-TERM INDUSTRIAL USE: MOLSON'S

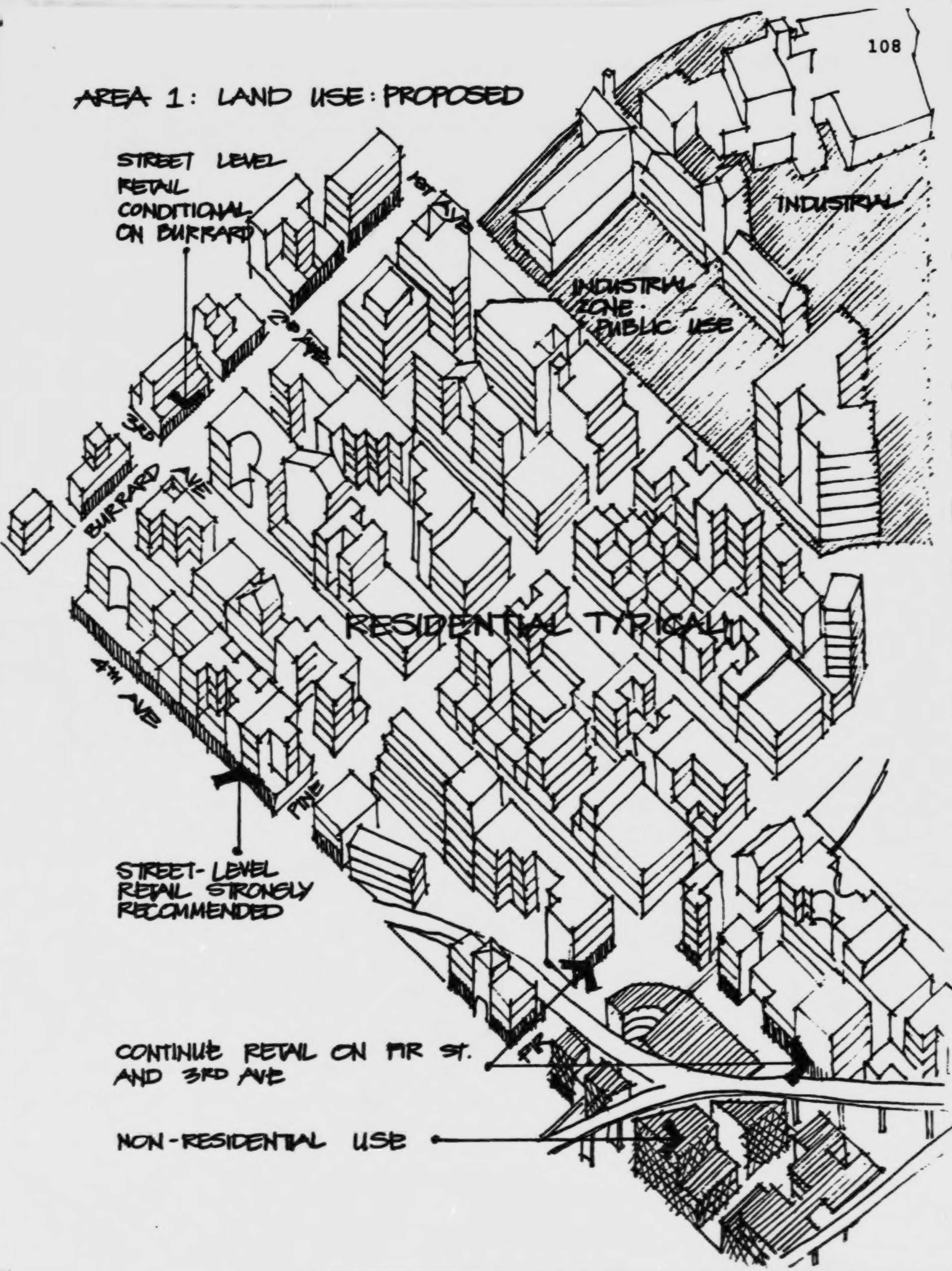
MAJOR PUBLIC LAND HOLDING: SEAFORTH ARMOURIES

GENERAL BUILD-UP OF MASSING TO NORTH

TYPICAL ROOF IS FLAT

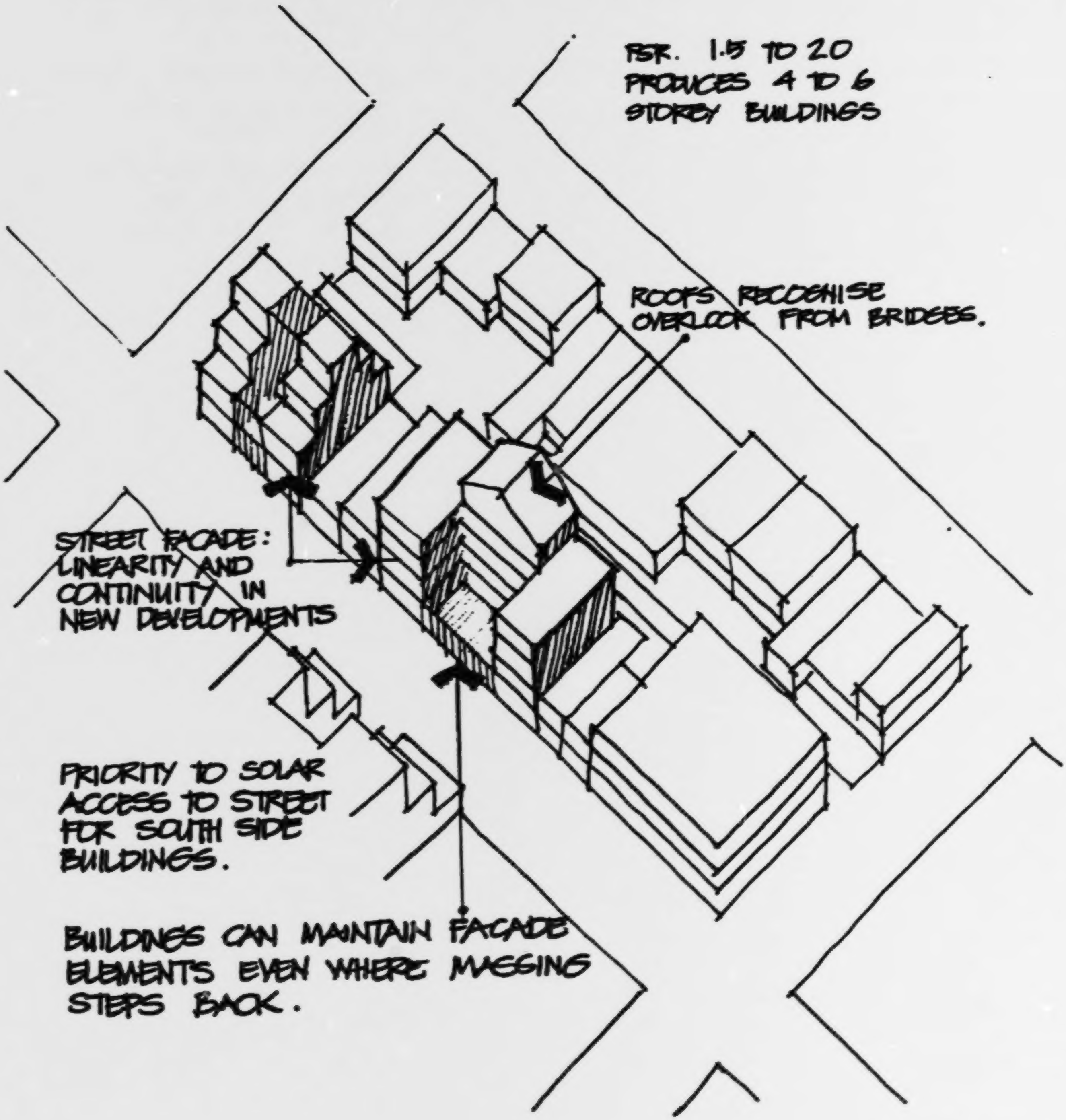
HORIZONTAL ONE- AND TWO-STOREY BUILDINGS PREDOMINATE

AREA 1: LAND USE: PROPOSED


STREET LEVEL RETAIL CONDITIONAL ON BURRARD
1ST AVE
INDUSTRIAL
INDUSTRIAL ZONE + PUBLIC USE
2ND AVE
3RD AVE
BURRARD
RESIDENTIAL TYPICAL
4TH AVE
PINE
STREET- LEVEL RETAIL STRONGLY RECOMMENDED
FIR
CONTINUE RETAIL ON FIR ST. AND 3RD AVE
NON-RESIDENTIAL USE

AREA 1· BUILT FORM

TYPICAL BLOCK IN TRANSITION



FSR. 1.5 TO 20
PRODUCES 4 TO 6
STOREY BUILDINGS

ROOFS RECOGNISE
OVERLOOK FROM BRIDGES.

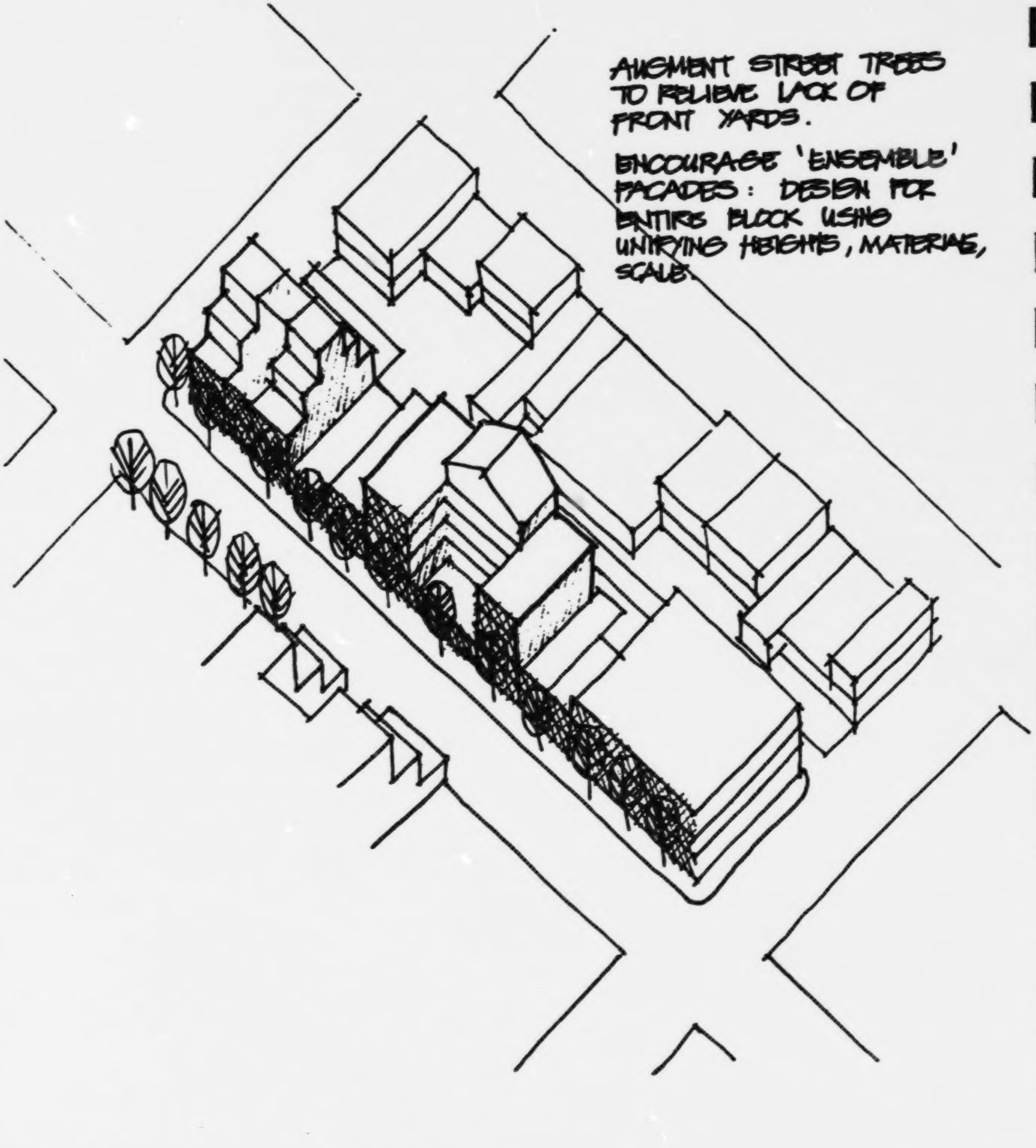
STREET FACADE:
LINEARITY AND
CONTINUITY IN
NEW DEVELOPMENTS

PRIORITY TO SOLAR
ACCESS TO STREET
FOR SOUTH SIDE
BUILDINGS.

BUILDINGS CAN MAINTAIN FACADE
ELEMENTS EVEN WHERE MASSING
STEPS BACK.

AREA 1 · STREETSCAPE

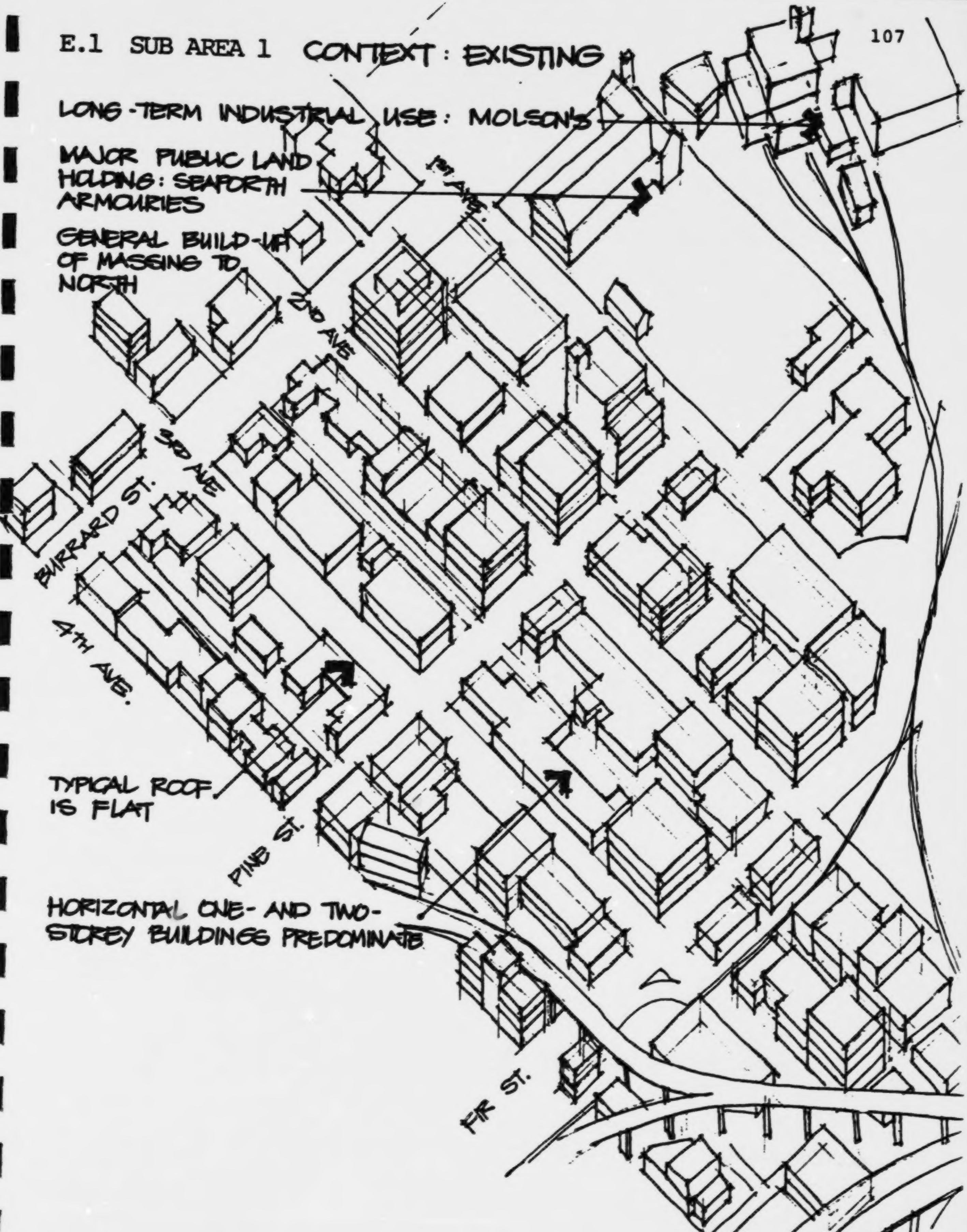
TYPICAL BLOCK



AUGMENT STREET TREES TO RELIEVE LACK OF FRONT YARDS.

ENCOURAGE 'ENSEMBLE' FACADES: DESIGN FOR ENTIRE BLOCK USING UNIFYING HEIGHTS, MATERIALS, SCALE.

E.1 SUB AREA 1 CONTEXT: EXISTING



LONG-TERM INDUSTRIAL USE: MOLSON'S

MAJOR PUBLIC LAND HOLDING: SEAFORTH ARMOURIES

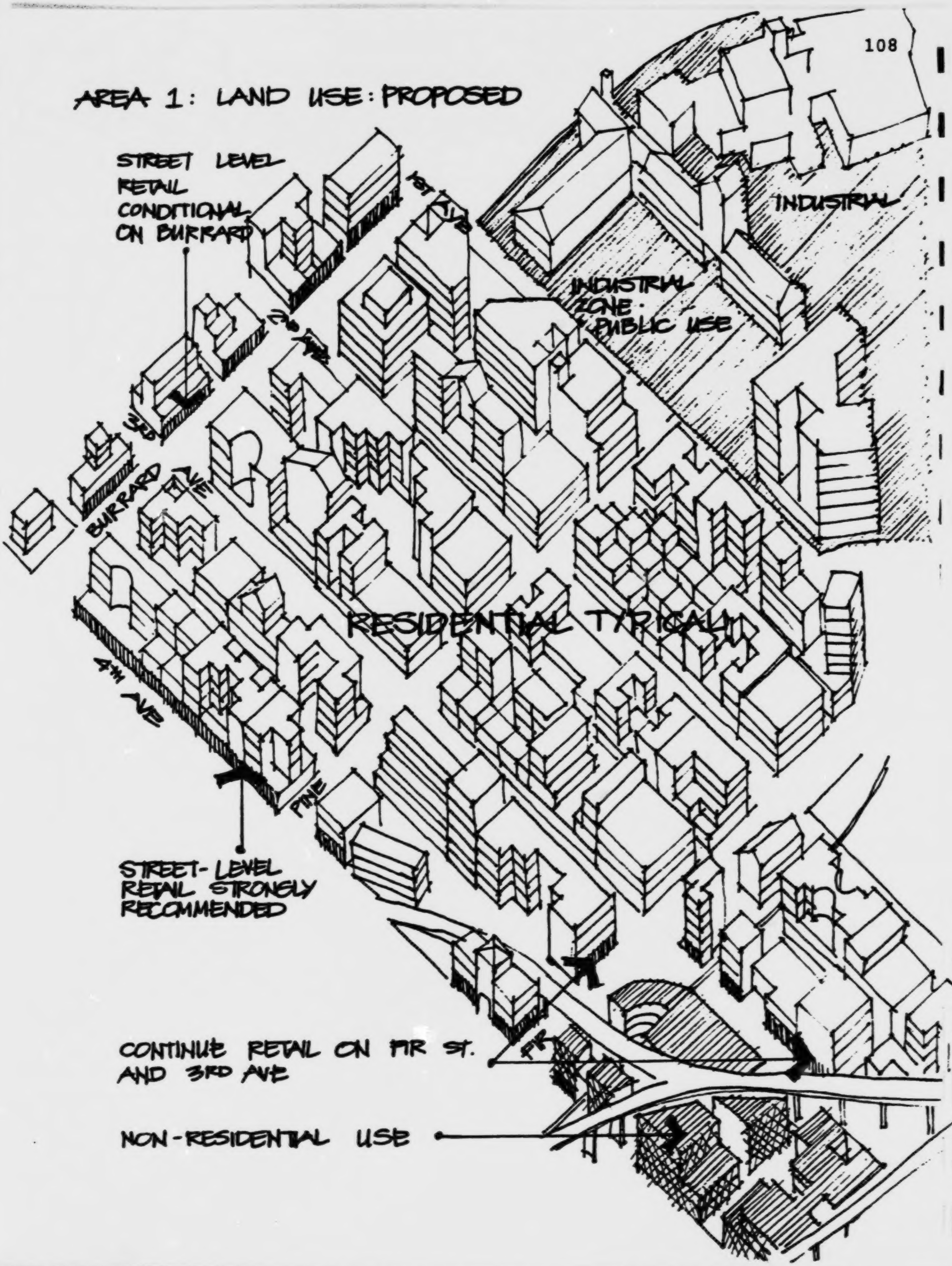
GENERAL BUILD-UP OF MASSING TO NORTH

TYPICAL ROOF IS FLAT

HORIZONTAL ONE- AND TWO-STOREY BUILDINGS PREDOMINATE

1ST AVE.
2ND AVE.
3RD AVE.
BURRARD ST.
4TH AVE.
PINE ST.
FIR ST.

AREA 1: LAND USE: PROPOSED


1ST AVE
INDUSTRIAL
INDUSTRIAL ZONE PUBLIC USE
2ND AVE
3RD
AVE
BURRARD
RESIDENTIAL TYPICAL
4TH AVE
PINE
FIR

STREET LEVEL RETAIL CONDITIONAL ON BURRARD

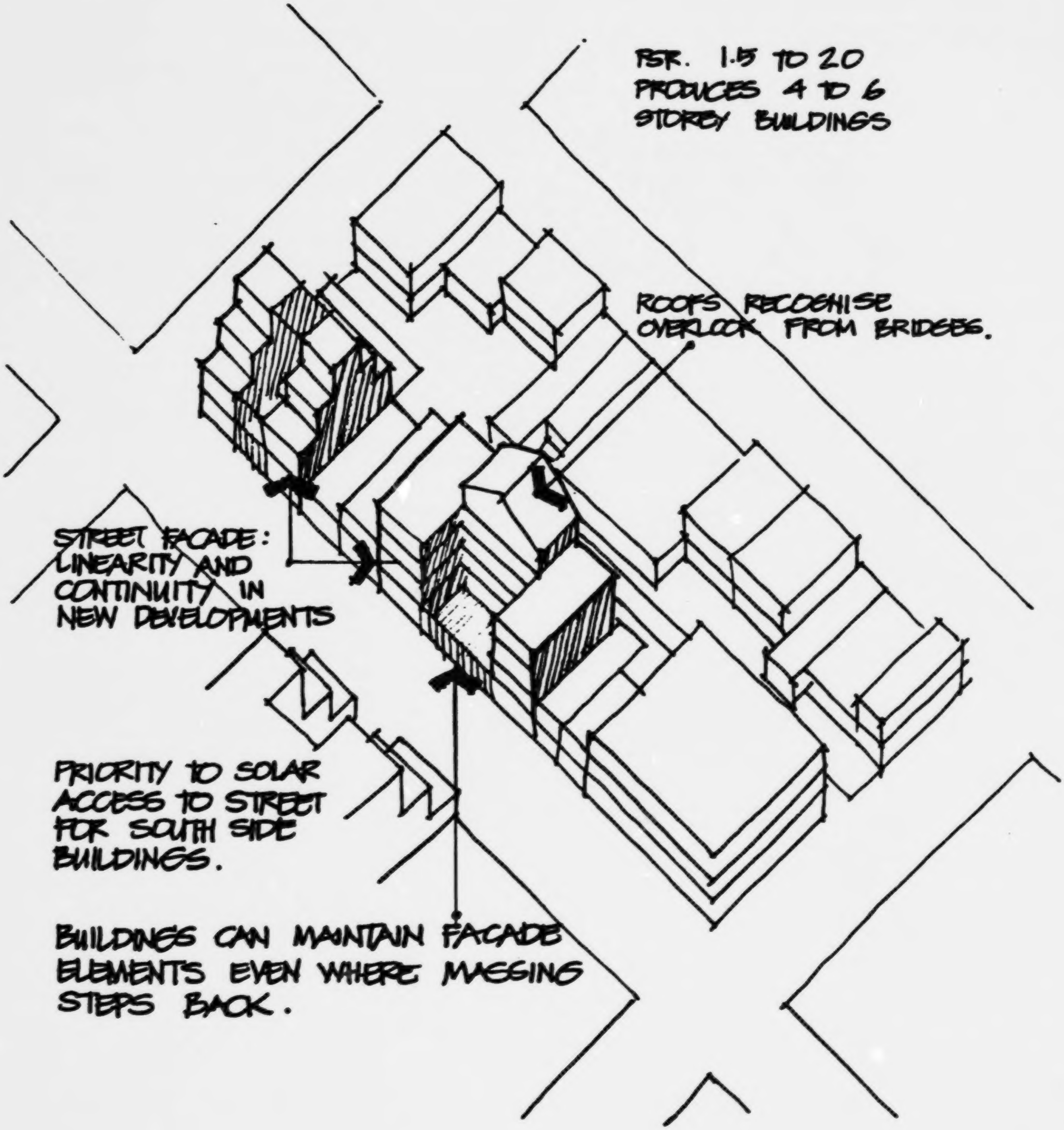
STREET-LEVEL RETAIL STRONGLY RECOMMENDED

CONTINUE RETAIL ON FIR ST. AND 3RD AVE

NON-RESIDENTIAL USE

AREA 1· BUILT FORM

TYPICAL BLOCK IN TRANSITION



FSR. 1.5 TO 2.0
PRODUCES 4 TO 6
STOREY BUILDINGS

ROOFS RECOGNISE
OVERLOOK FROM BRIDGES.

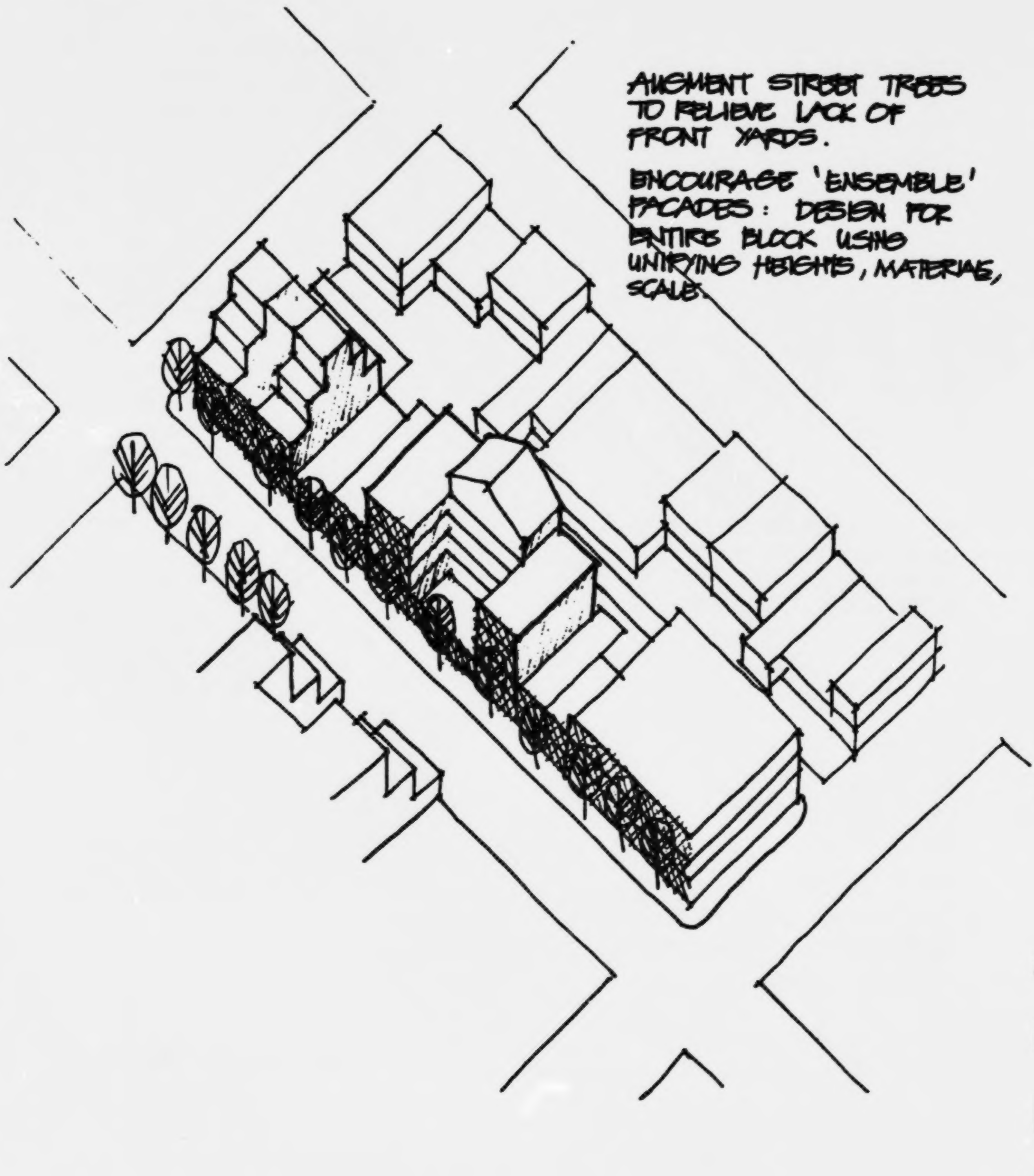
STREET FACADE:
LINEARITY AND
CONTINUITY IN
NEW DEVELOPMENTS

PRIORITY TO SOLAR
ACCESS TO STREET
FOR SOUTH SIDE
BUILDINGS.

BUILDINGS CAN MAINTAIN FACADE
ELEMENTS EVEN WHERE MASSING
STEPS BACK.

AREA 1 · STREETSCAPE

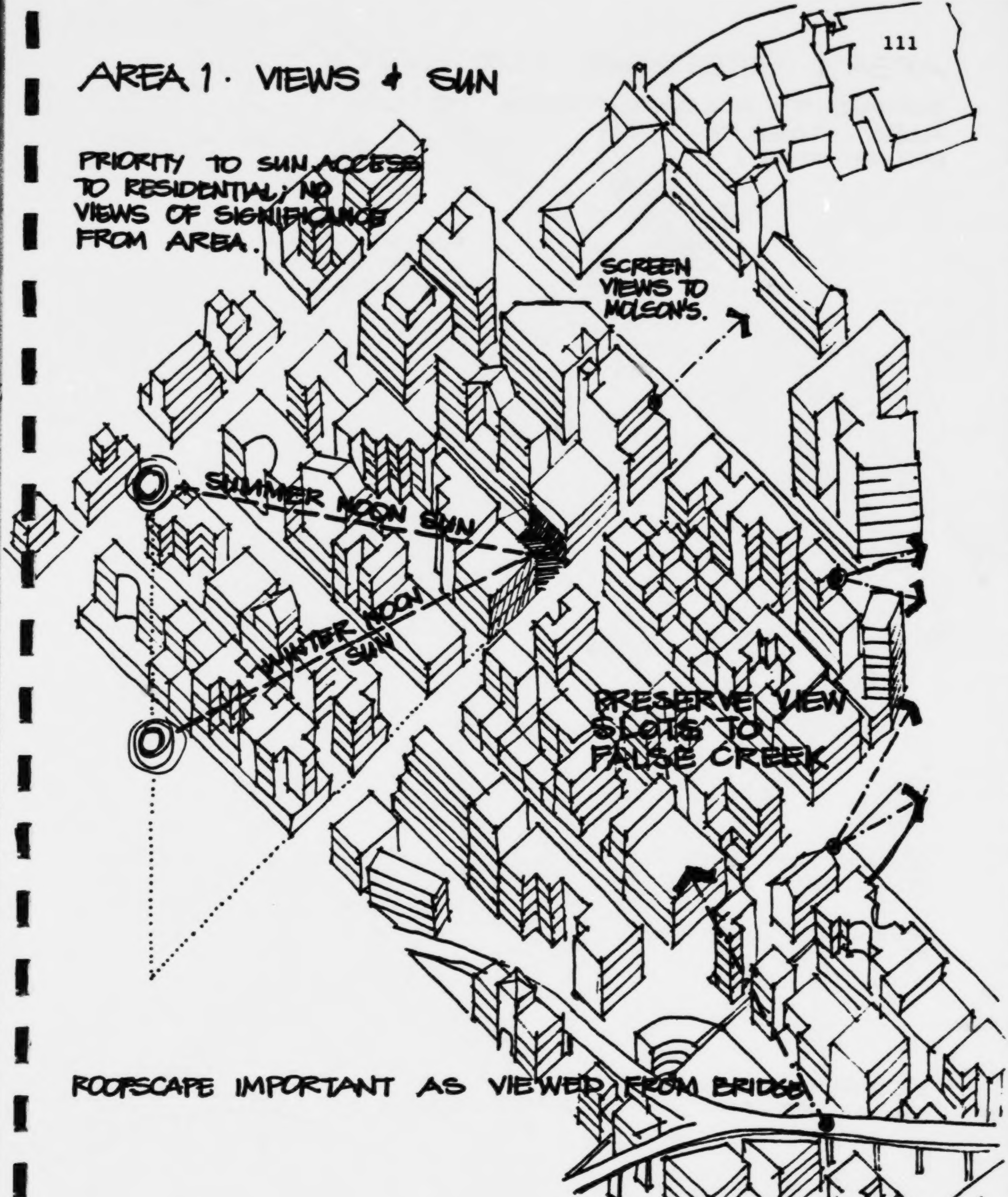
TYPICAL BLOCK



AUGMENT STREET TREES TO RELIEVE LACK OF FRONT YARDS.

ENCOURAGE 'ENSEMBLE' FACADES: DESIGN FOR ENTIRE BLOCK USING UNIFYING HEIGHTS, MATERIALS, SCALE.

AREA 1 · VIEWS & SUN



PRIORITY TO SUN ACCESS TO RESIDENTIAL; NO VIEWS OF SIGNIFICANCE FROM AREA.

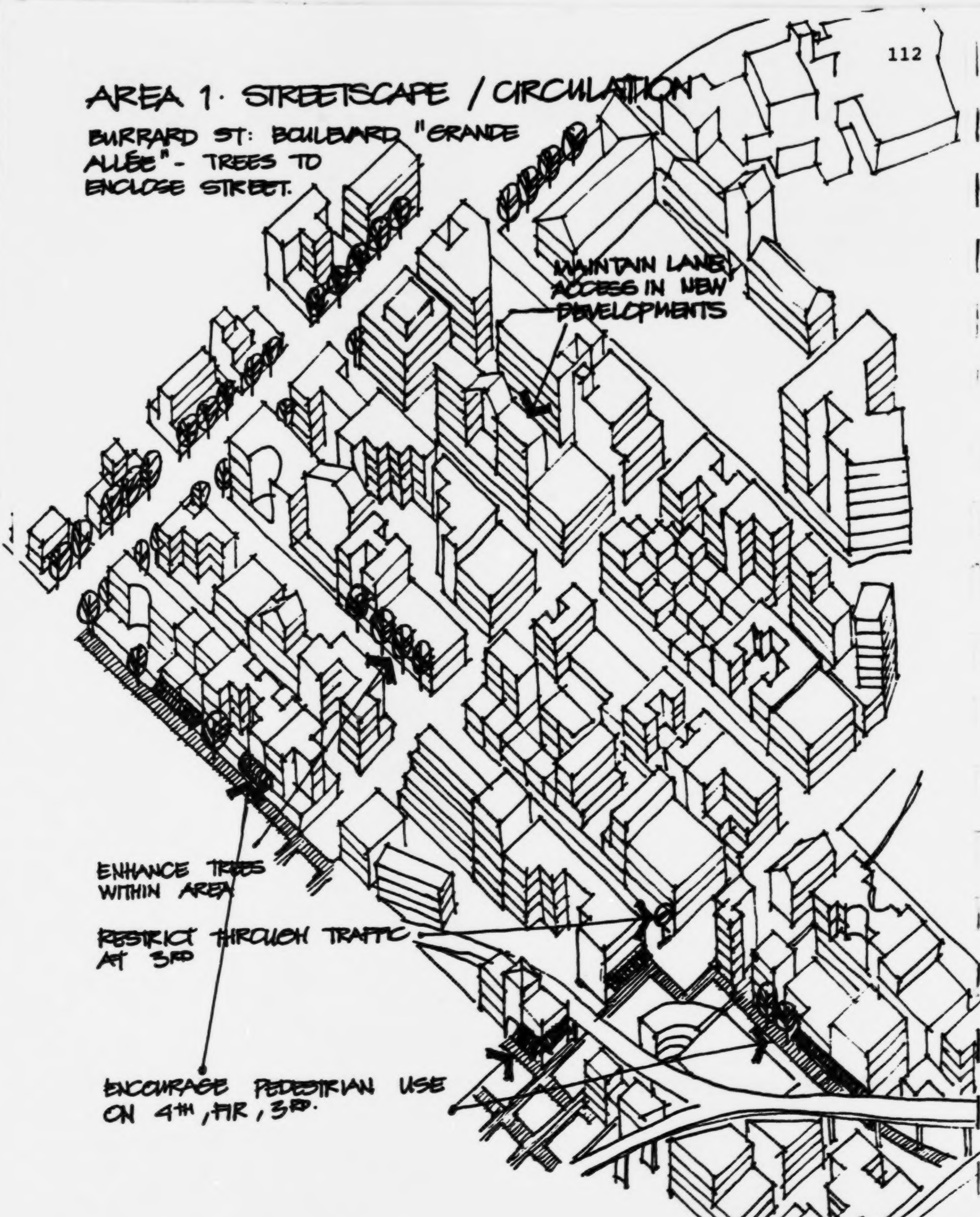
SCREEN VIEWS TO MOLSON'S.

PRESERVE VIEW SLOTS TO FALSE CREEK

ROOFSCAPE IMPORTANT AS VIEWED FROM BRIDGE

SUMMER NOON SUN
WINTER NOON SUN

AREA 1· STREETSCAPE / CIRCULATION



BURRARD ST: BOULEVARD "GRANDE ALLÉE" - TREES TO ENCLOSE STREET.

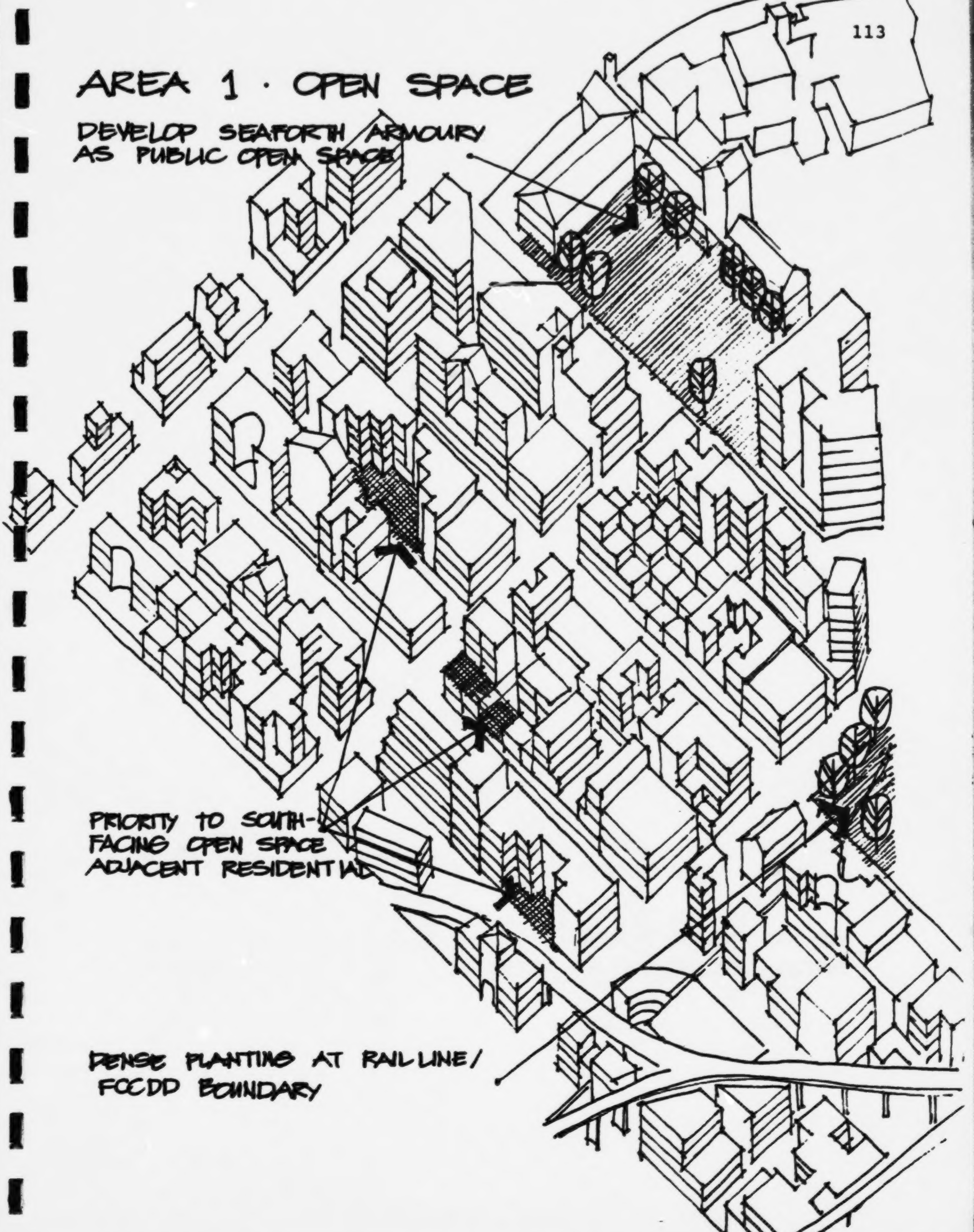
MAINTAIN LANE ACCESS IN NEW DEVELOPMENTS

ENHANCE TREES WITHIN AREA

RESTRICT THROUGH TRAFFIC AT 3RD

ENCOURAGE PEDESTRIAN USE ON 4TH, FIR, 3RD.

AREA 1 · OPEN SPACE

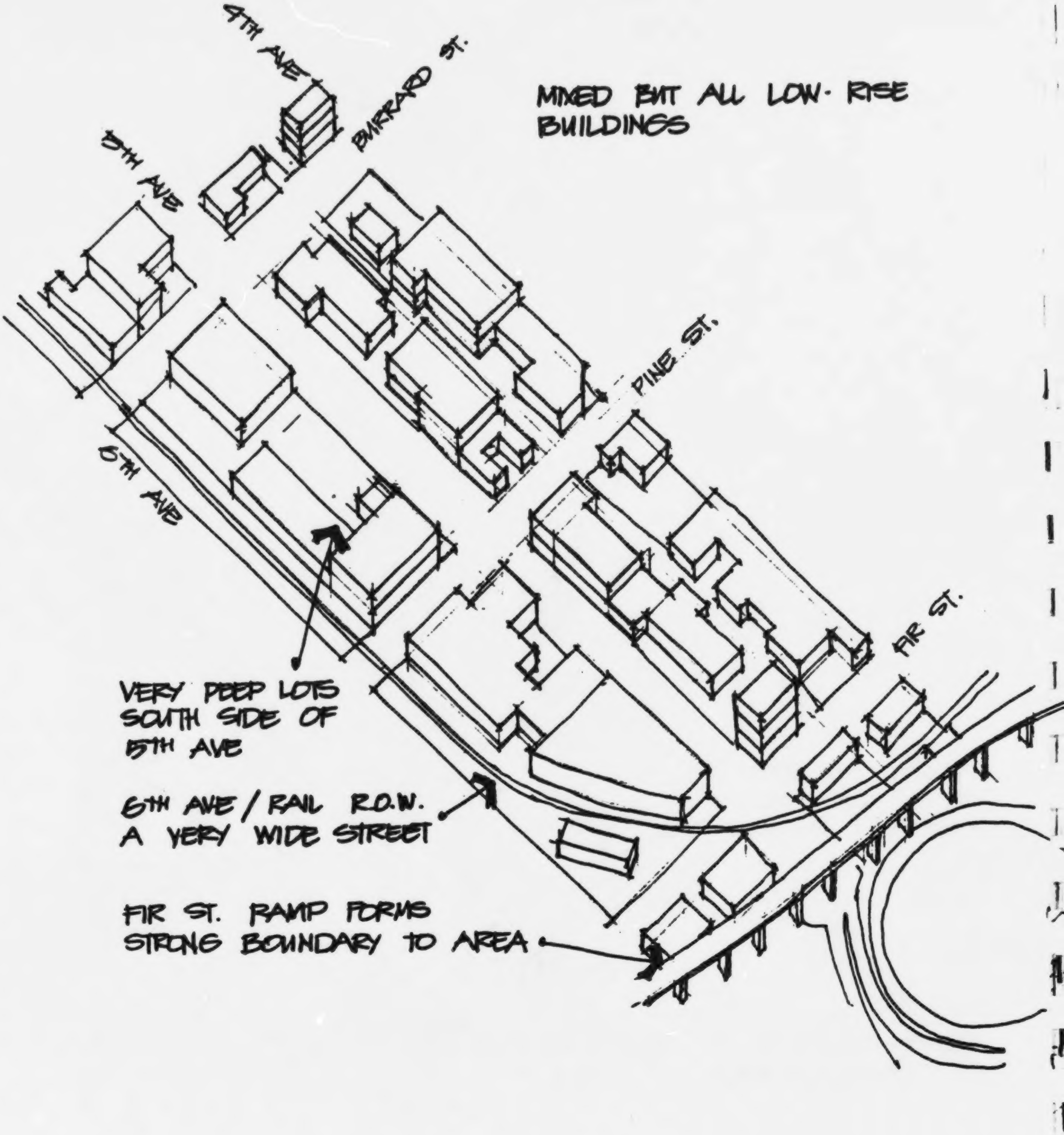


DEVELOP SEAFORTH ARMOURY AS PUBLIC OPEN SPACE

PRIORITY TO SOUTH-FACING OPEN SPACE ADJACENT RESIDENTIAL

DENSE PLANTING AT RAIL LINE/ FCCDD BOUNDARY

E.2 SUB AREA 2 NORTH · CONTEXT · EXISTING


4TH AVE
BURRARD ST.
5TH AVE
PINE ST.
6TH AVE
FIR ST.

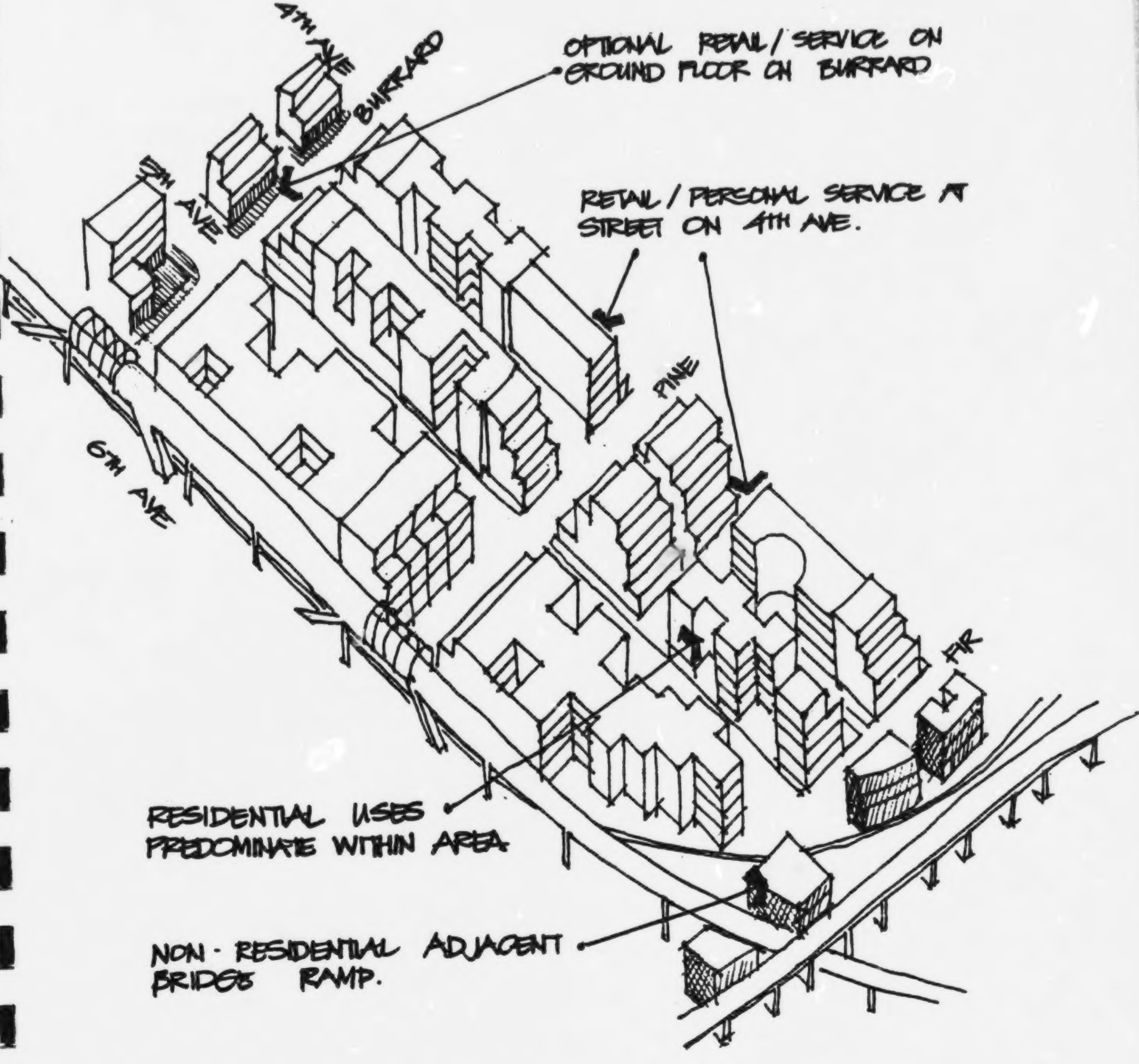
MIXED BUT ALL LOW·RISE BUILDINGS

VERY DEEP LOTS SOUTH SIDE OF 5TH AVE

6TH AVE / RAIL R.O.W. A VERY WIDE STREET

FIR ST. RAMP FORMS STRONG BOUNDARY TO AREA

AREA 2 NORTH · LAND USE · PROPOSED


4TH AVE
BURRARD
5TH AVE
6TH AVE
PINE
FIR

OPTIONAL RETAIL / SERVICE ON GROUND FLOOR ON BURRARD

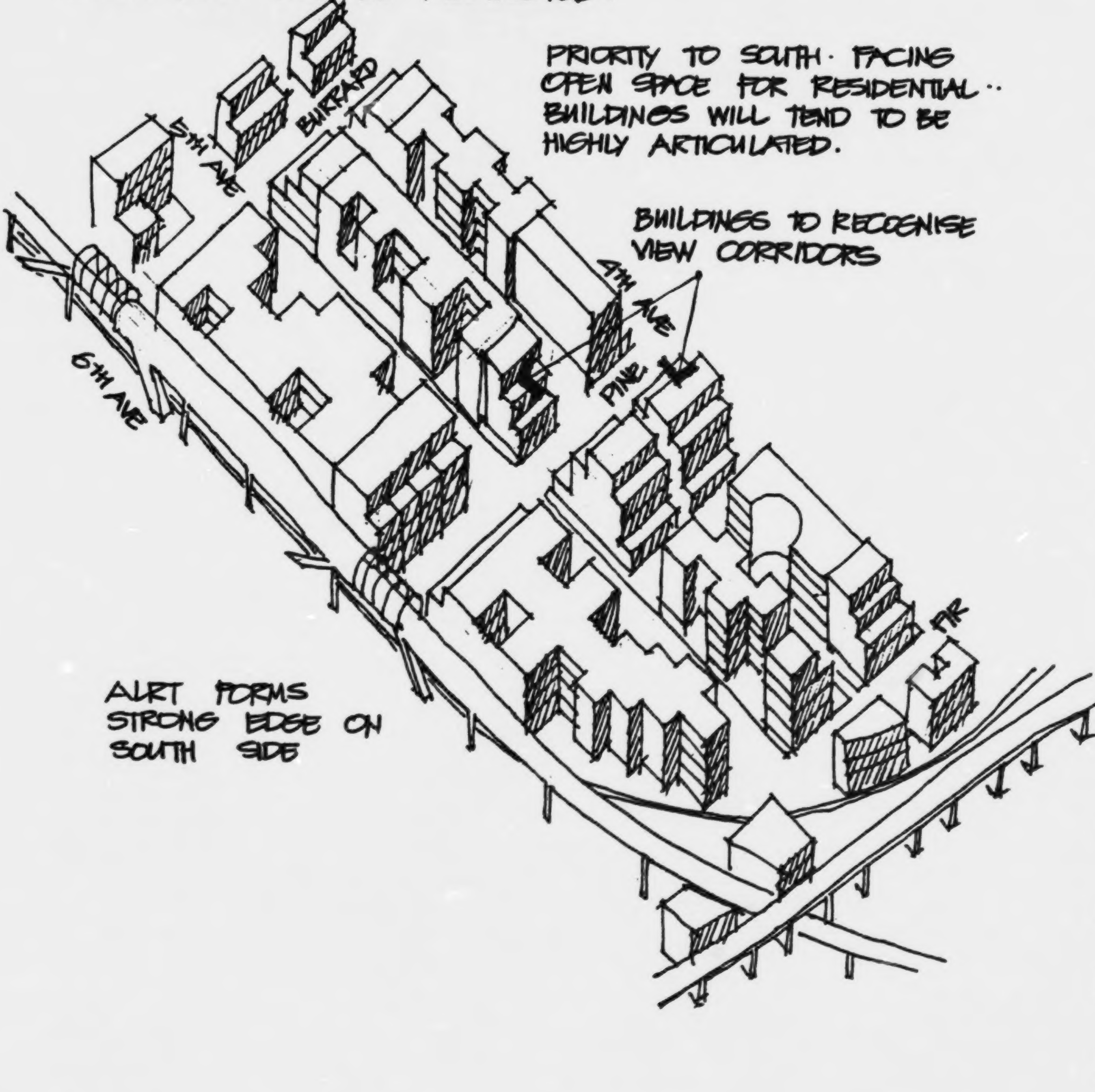
RETAIL / PERSONAL SERVICE AT STREET ON 4TH AVE.

RESIDENTIAL USES PREDOMINATE WITHIN AREA

NON - RESIDENTIAL ADJACENT BRIDGE RAMP.

AREA 2 NORTH · BUILT FORM

FSR. 1.5 TO 2.0
4 STOREYS COULD BE REASONABLE LIMIT ~ BUT HEIGHT NEED NOT BE RESTRICTED.

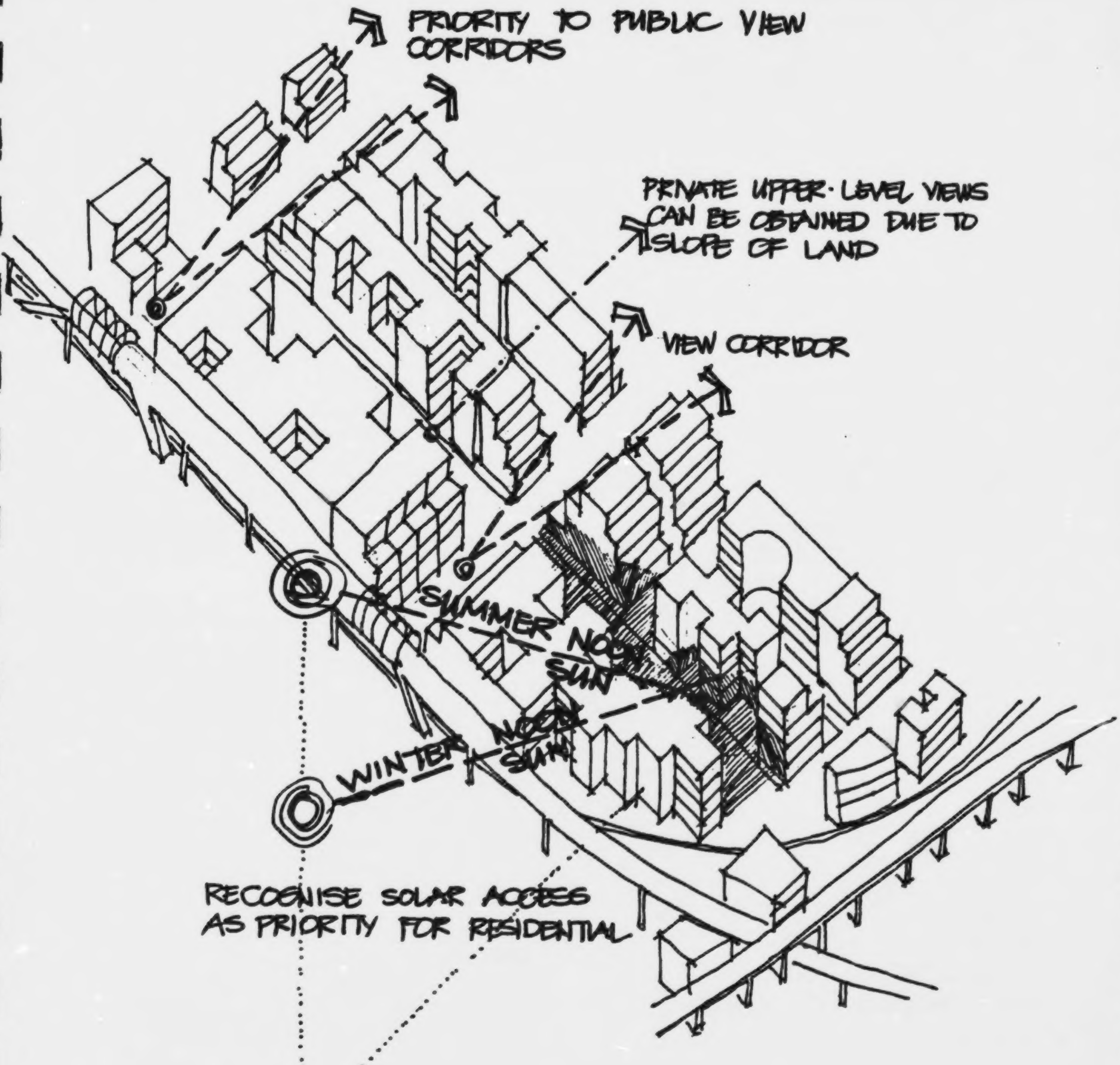

5TH AVE
BURRARD
4TH AVE
PINE
6TH AVE
FIR

PRIORITY TO SOUTH · FACING OPEN SPACE FOR RESIDENTIAL ·· BUILDINGS WILL TEND TO BE HIGHLY ARTICULATED.

BUILDINGS TO RECOGNISE VIEW CORRIDORS

ALRT FORMS STRONG EDGE ON SOUTH SIDE

AREA 2 NORTH · VIEWS / SUN



PRIORITY TO PUBLIC VIEW CORRIDORS

PRIVATE UPPER-LEVEL VIEWS CAN BE OBTAINED DUE TO SLOPE OF LAND

VIEW CORRIDOR

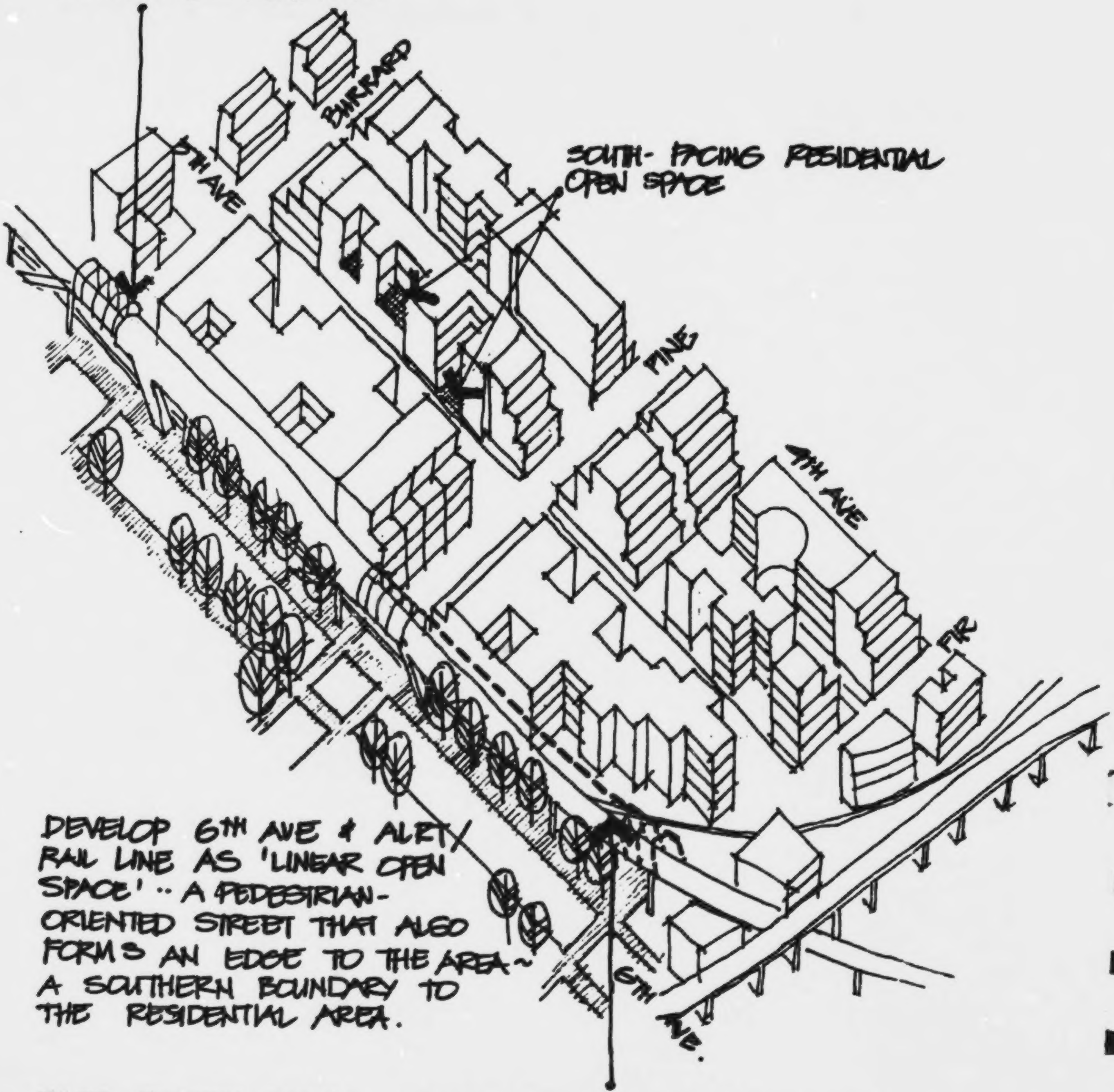
RECOGNISE SOLAR ACCESS AS PRIORITY FOR RESIDENTIAL

SUMMER NOON SUN
WINTER NOON SUN

AREA 2 NORTH · STREETSCAPE / CIRCULATION / OPEN SPACE

CURRENT PROPOSED ALRT STATION: 6TH + BURRARD

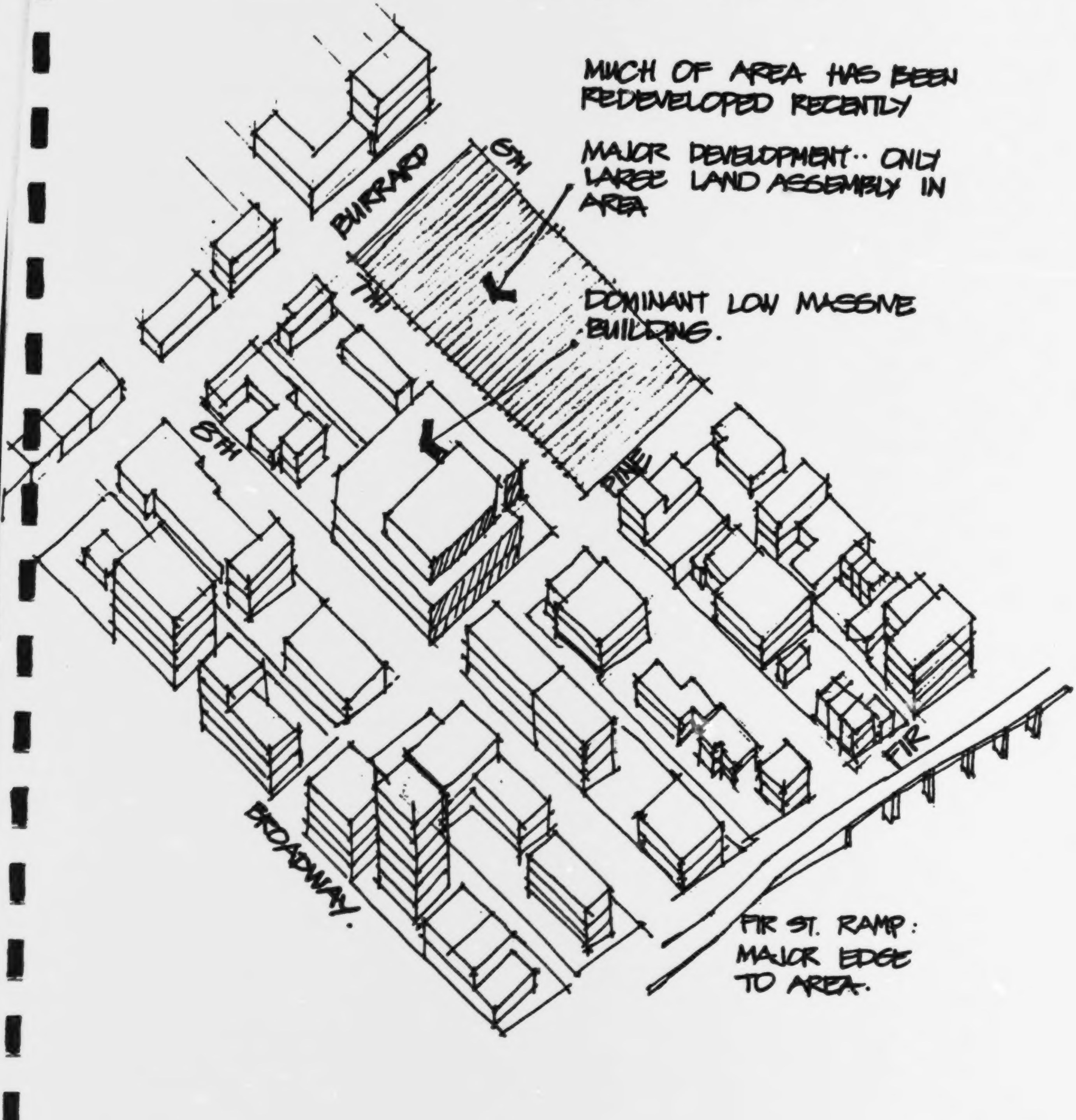
SOUTH-FACING RESIDENTIAL OPEN SPACE



DEVELOP 6TH AVE & ALRT/RAIL LINE AS 'LINEAR OPEN SPACE' .. A PEDESTRIAN-ORIENTED STREET THAT ALSO FORMS AN EDGE TO THE AREA ~ A SOUTHERN BOUNDARY TO THE RESIDENTIAL AREA.

ALRT STATION SHOULD EXTEND TO FIR IF POSSIBLE: LINK TO GRANVILLE BUSINESS & TRANSIT.

E.3 SUB AREA 2 SOUTH : CONTEXT · EXISTING.


BURRARD
6TH
7TH
8TH
PINE
FIR
BROADWAY.

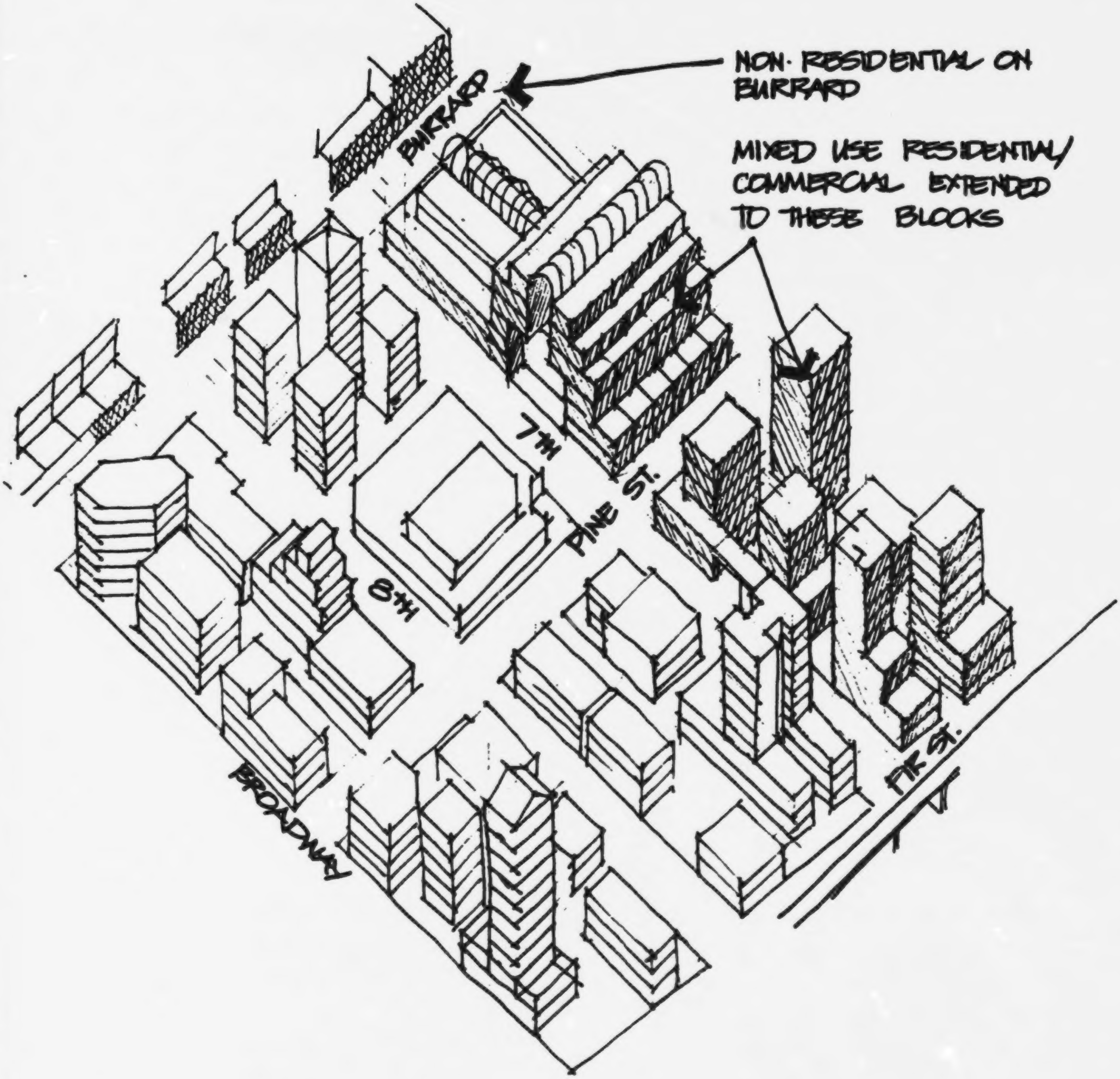
MUCH OF AREA HAS BEEN REDEVELOPED RECENTLY

MAJOR DEVELOPMENT·· ONLY LARGE LAND ASSEMBLY IN AREA

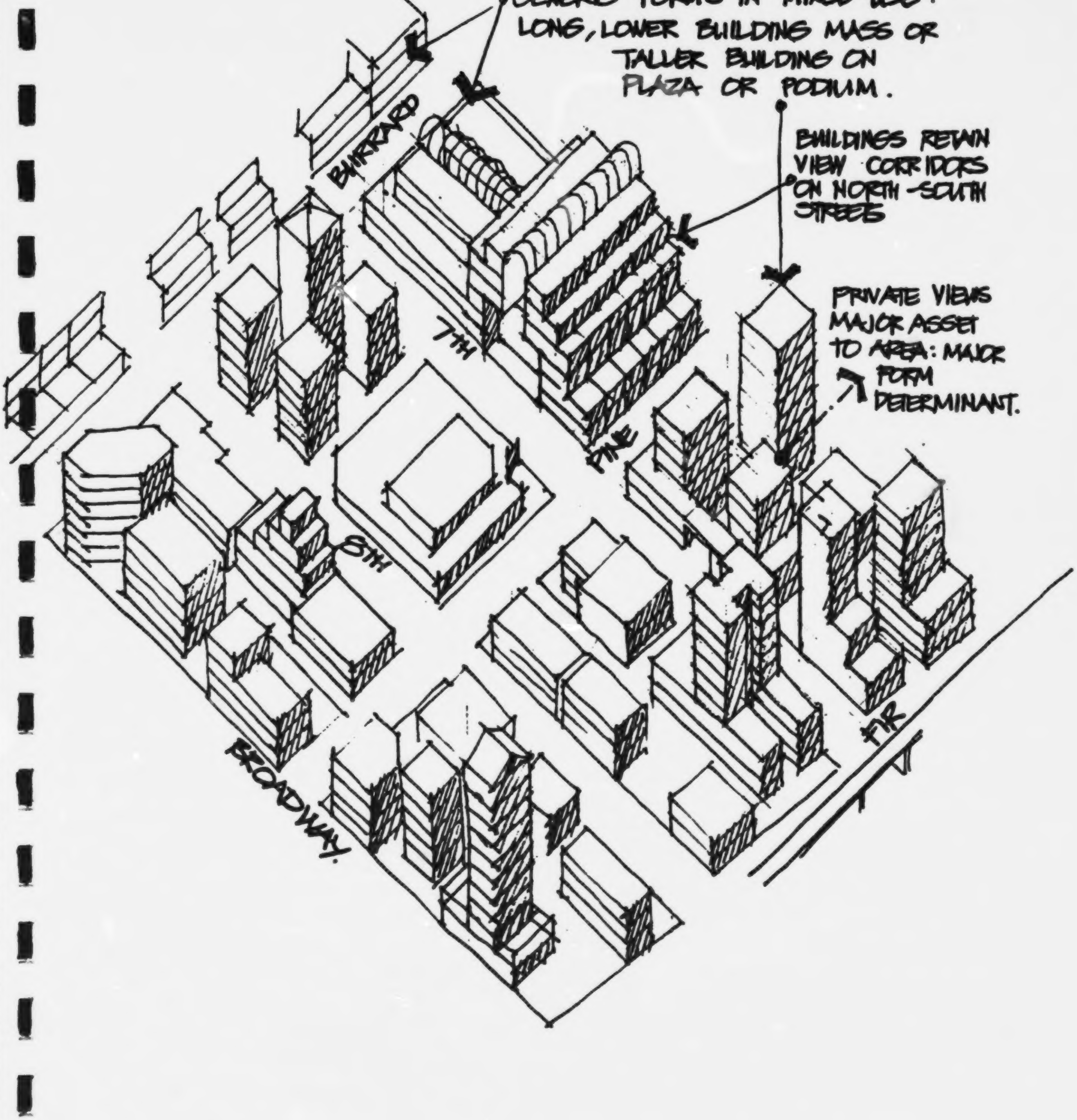
DOMINANT LOW MASSIVE BUILDING.

FIR ST. RAMP: MAJOR EDGE TO AREA.

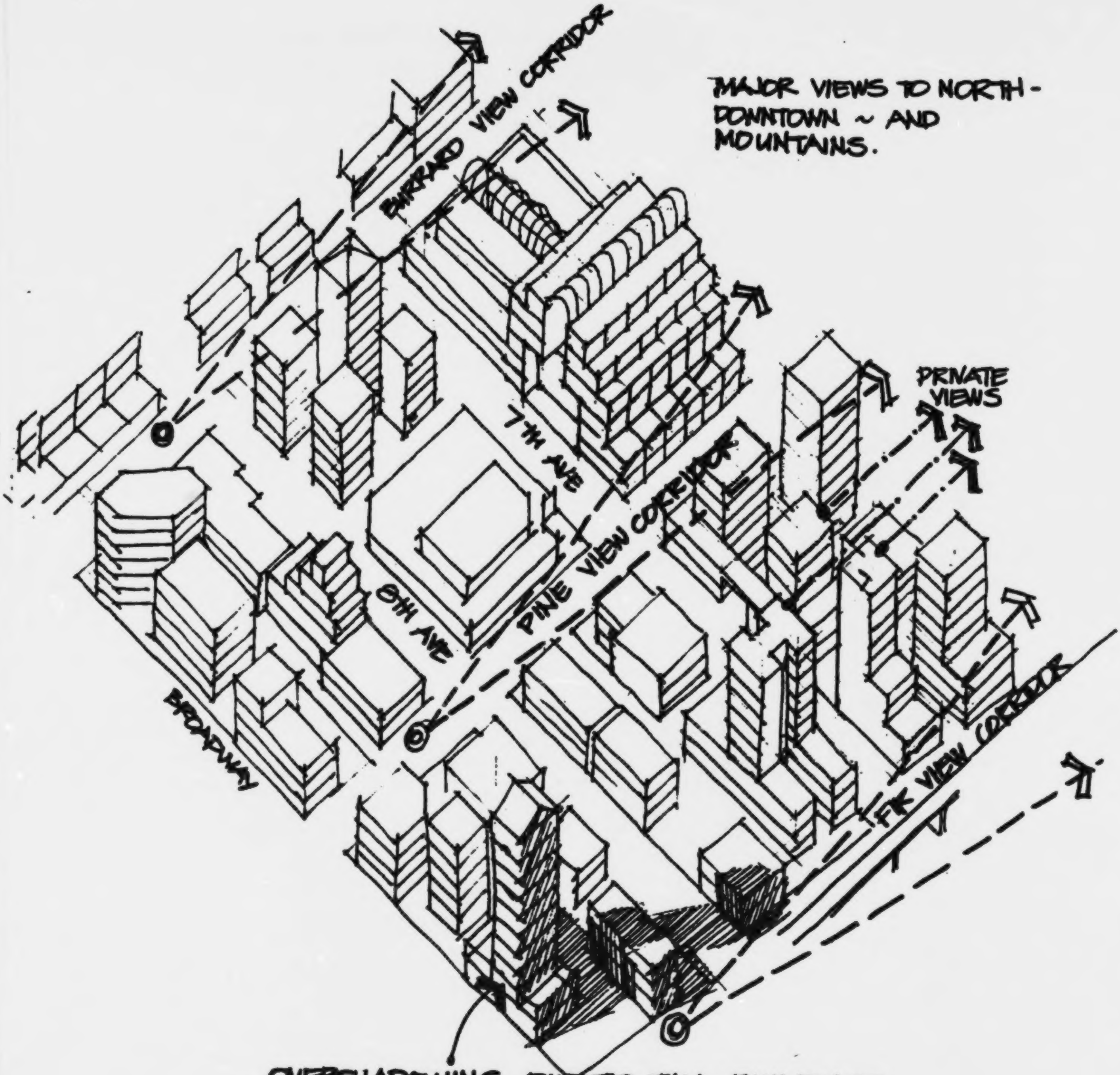
AREA 2 SOUTH: LAND USE · PROPOSED


NON· RESIDENTIAL ON BURRARD
MIXED USE RESIDENTIAL/ COMMERCIAL EXTENDED TO THESE BLOCKS
BURRARD
7TH
8TH
PINE ST.
BROADWAY
FIR ST.

AREA 2 SOUTH : BUILT FORM

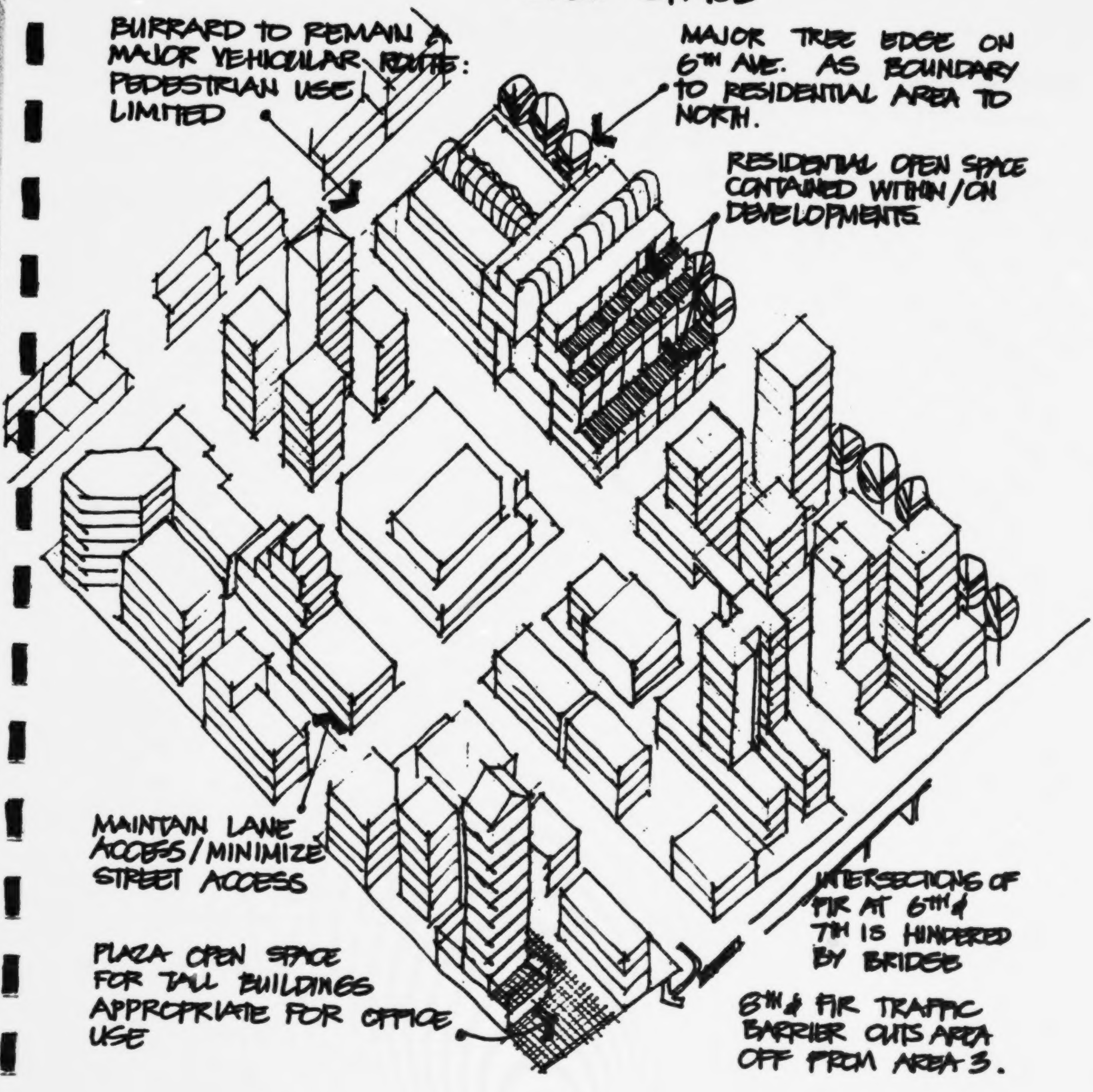

GENERIC FORMS IN MIXED-USE: LONG, LOWER BUILDING MASS OR TALLER BUILDING ON PLAZA OR PODIUM.
BUILDINGS RETAIN VIEW CORRIDORS ON NORTH-SOUTH STREETS
PRIVATE VIEWS MAJOR ASSET TO AREA: MAJOR FORM DETERMINANT.
BURRARD
7TH
PINE
8TH
BROADWAY
FIR

AREA 2 SOUTH: VIEWS / SUN


MAJOR VIEWS TO NORTH - DOWNTOWN ~ AND MOUNTAINS.
BURRARD VIEW CORRIDOR
7th AVE
8TH AVE
BROADWAY
PINE VIEW CORRIDOR
PRIVATE VIEWS
FIR VIEW CORRIDOR

OVERSHADOWING DUE TO TALL BUILDINGS AND SLOPE OF LAND MUST BE CONSIDERED IN ALL NEW BUILDINGS.

AREA 2 SOUTH: STREETSCAPE / CIRCULATION / OPEN SPACE



BURRARD TO REMAIN A MAJOR VEHICULAR ROUTE: PEDESTRIAN USE LIMITED

MAJOR TREE EDGE ON 6TH AVE. AS BOUNDARY TO RESIDENTIAL AREA TO NORTH.

RESIDENTIAL OPEN SPACE CONTAINED WITHIN / ON DEVELOPMENTS

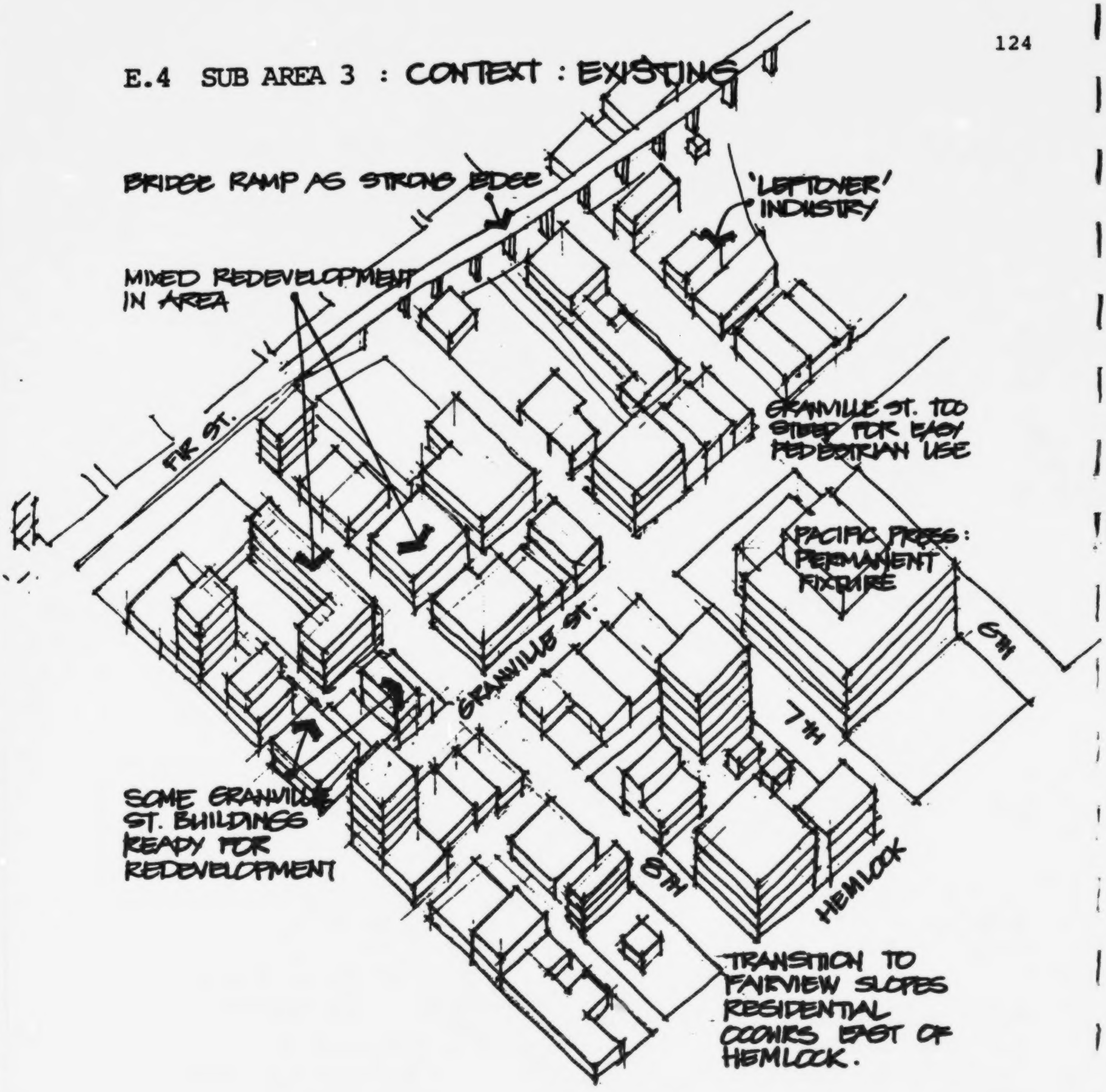
MAINTAIN LANE ACCESS / MINIMIZE STREET ACCESS

PLAZA OPEN SPACE FOR TALL BUILDINGS APPROPRIATE FOR OFFICE USE

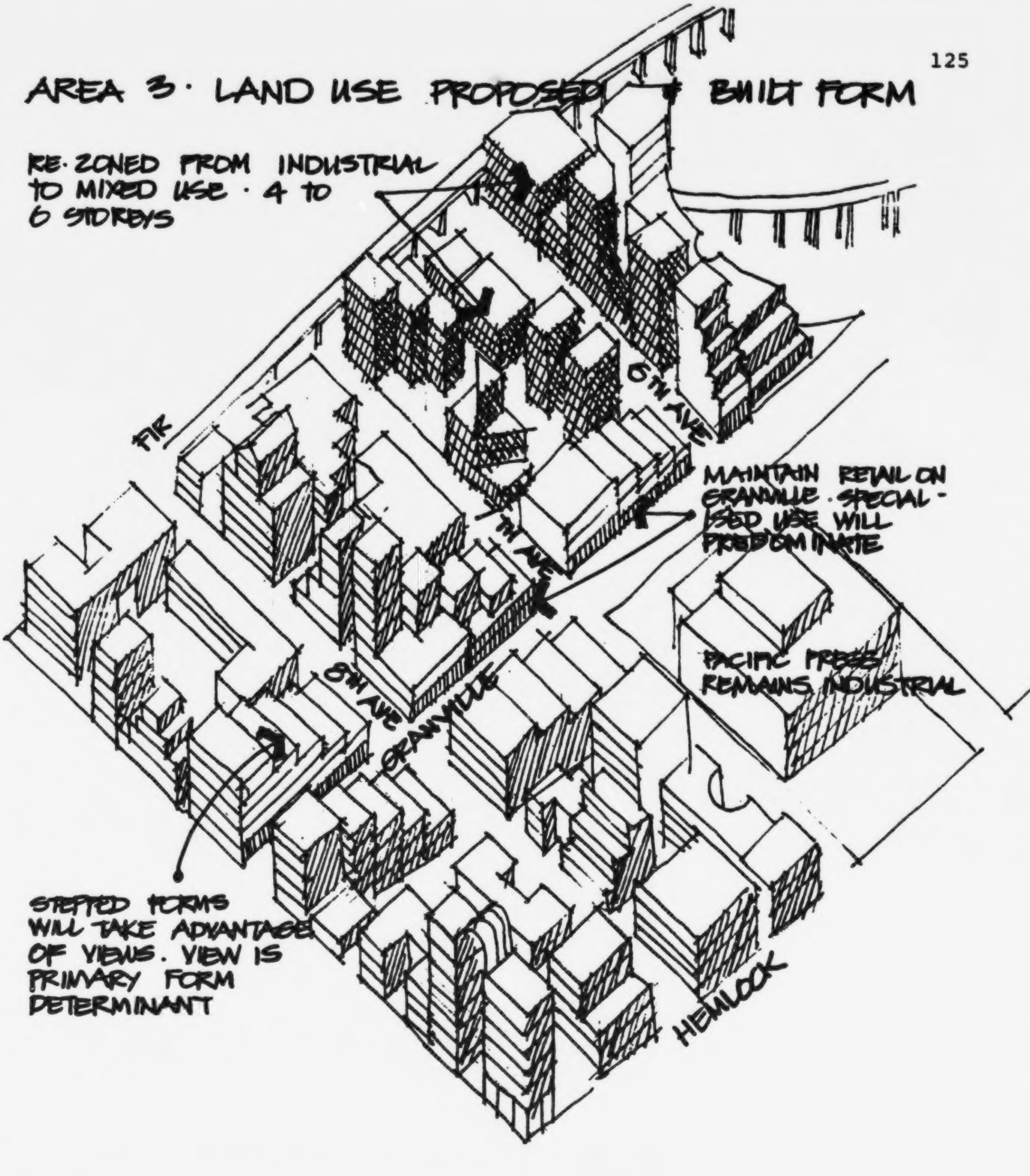
INTERSECTIONS OF FIR AT 6TH & 7TH IS HINDERED BY BRIDGE

8TH & FIR TRAFFIC BARRIER CUTS AREA OFF FROM AREA 3.

E.4 SUB AREA 3 : CONTEXT : EXISTING


BRIDGE RAMP AS STRONG EDGE
'LEFTOVER' INDUSTRY
MIXED REDEVELOPMENT IN AREA
FIR ST.
GRANVILLE ST. TOO STEEP FOR EASY PEDESTRIAN USE
PACIFIC PRESS: PERMANENT FIXTURE
GRANVILLE ST.
GRANVILLE ST.
6TH
7TH
SOME GRANVILLE ST. BUILDINGS READY FOR REDEVELOPMENT
8TH
HEMLOCK
TRANSITION TO FAIRVIEW SLOPES RESIDENTIAL OCCURS EAST OF HEMLOCK.

AREA 3 · LAND USE PROPOSED & BUILT FORM



FIR
6TH AVE
7TH AVE
8TH AVE
GRANVILLE
HEMLOCK

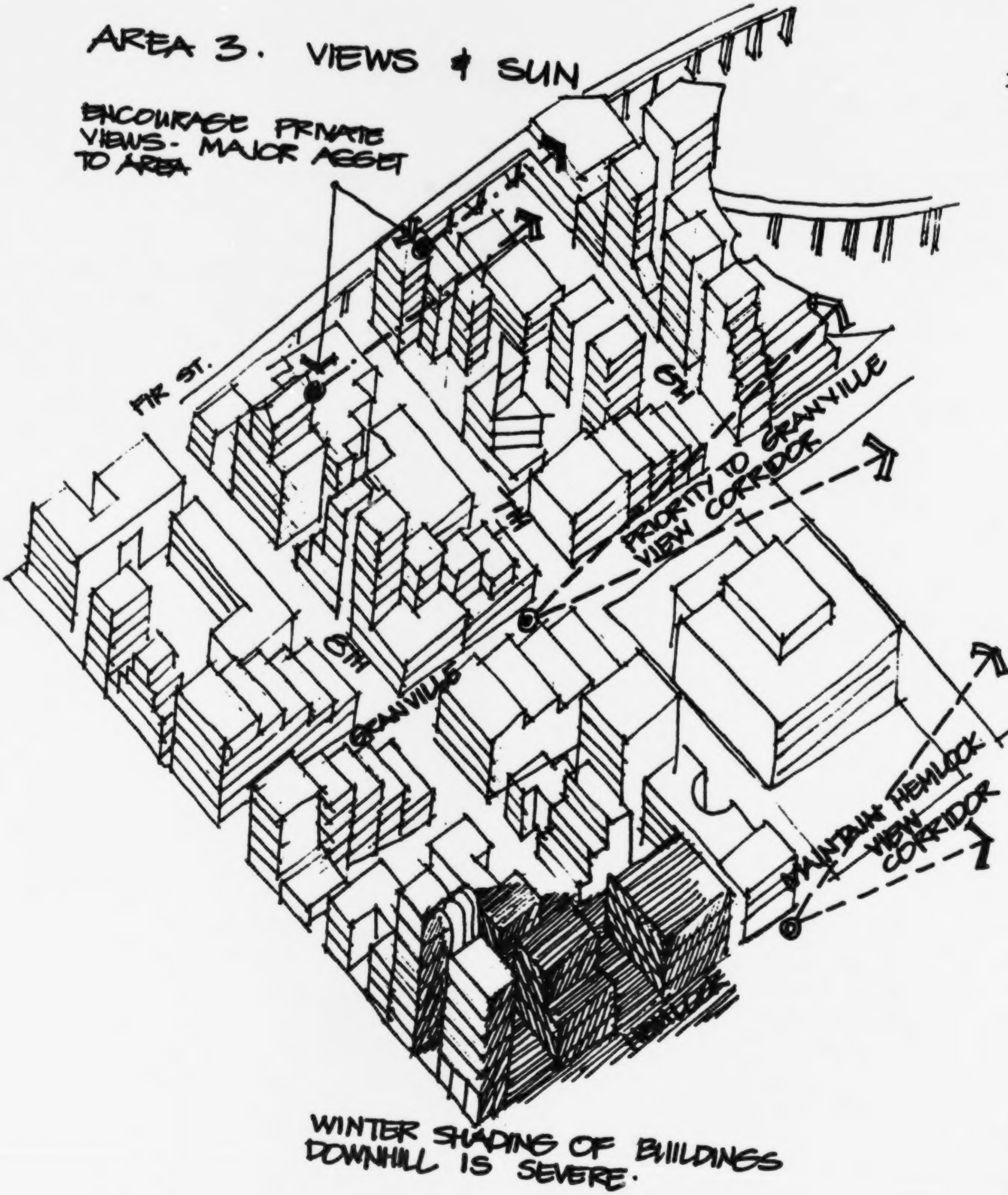
RE-ZONED FROM INDUSTRIAL
TO MIXED USE · 4 TO
6 STOREYS

MAINTAIN RETAIL ON
GRANVILLE · SPECIAL-
ISED USE WILL
PREDOMINATE

PACIFIC PRESS
REMAINS INDUSTRIAL

STEPPED FORMS
WILL TAKE ADVANTAGE
OF VIEWS. VIEW IS
PRIMARY FORM
DETERMINANT

AREA 3. VIEWS & SUN



ENCOURAGE PRIVATE VIEWS- MAJOR ASSET TO AREA

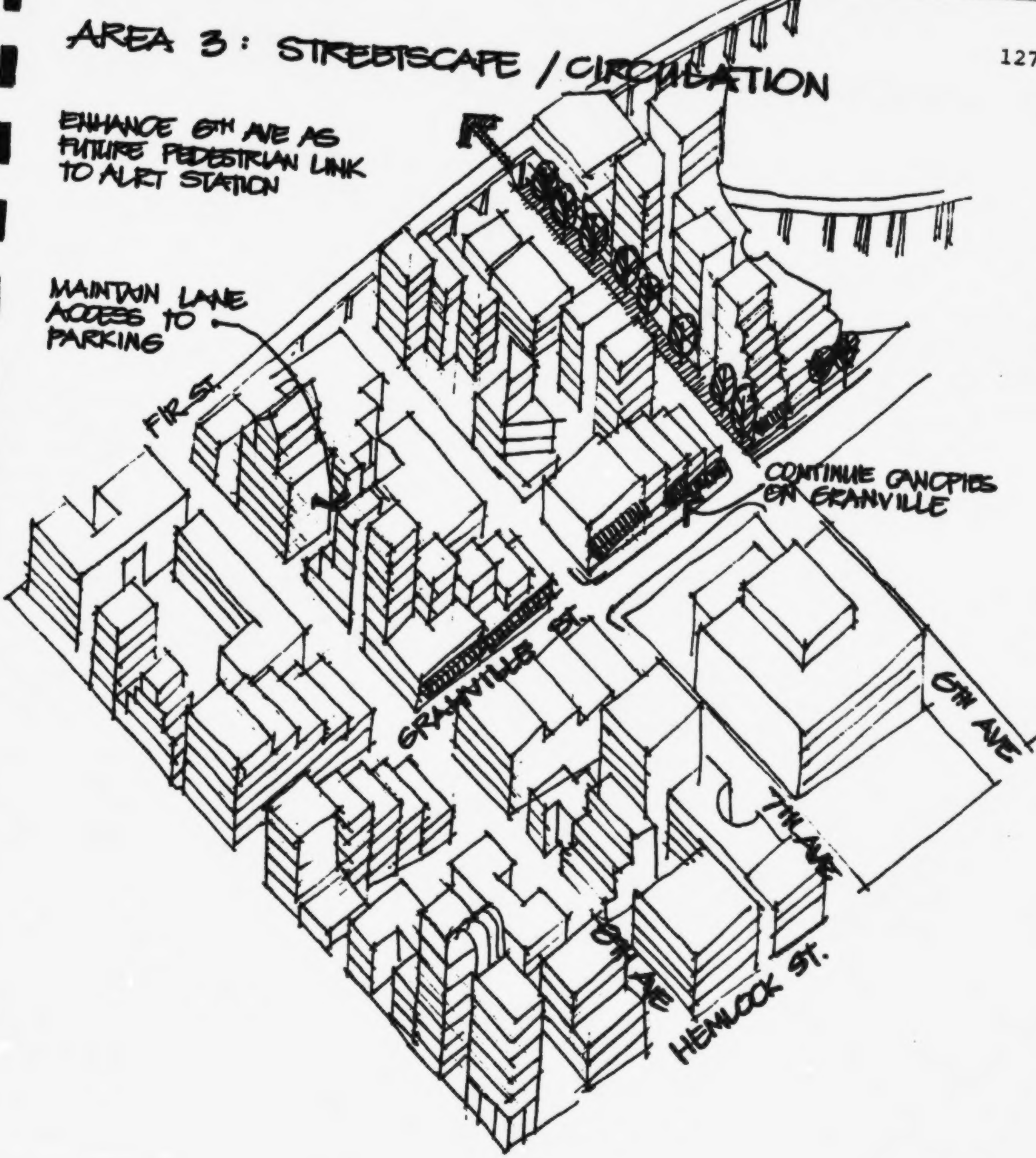
PRIORITY TO GRANVILLE VIEW CORRIDOR

MAINTAIN HEMLOCK VIEW CORRIDOR

FIR ST.
6TH
7TH
6TH
GRANVILLE

WINTER SHADING OF BUILDINGS DOWNHILL IS SEVERE.

AREA 3: STREETSCAPE / CIRCULATION



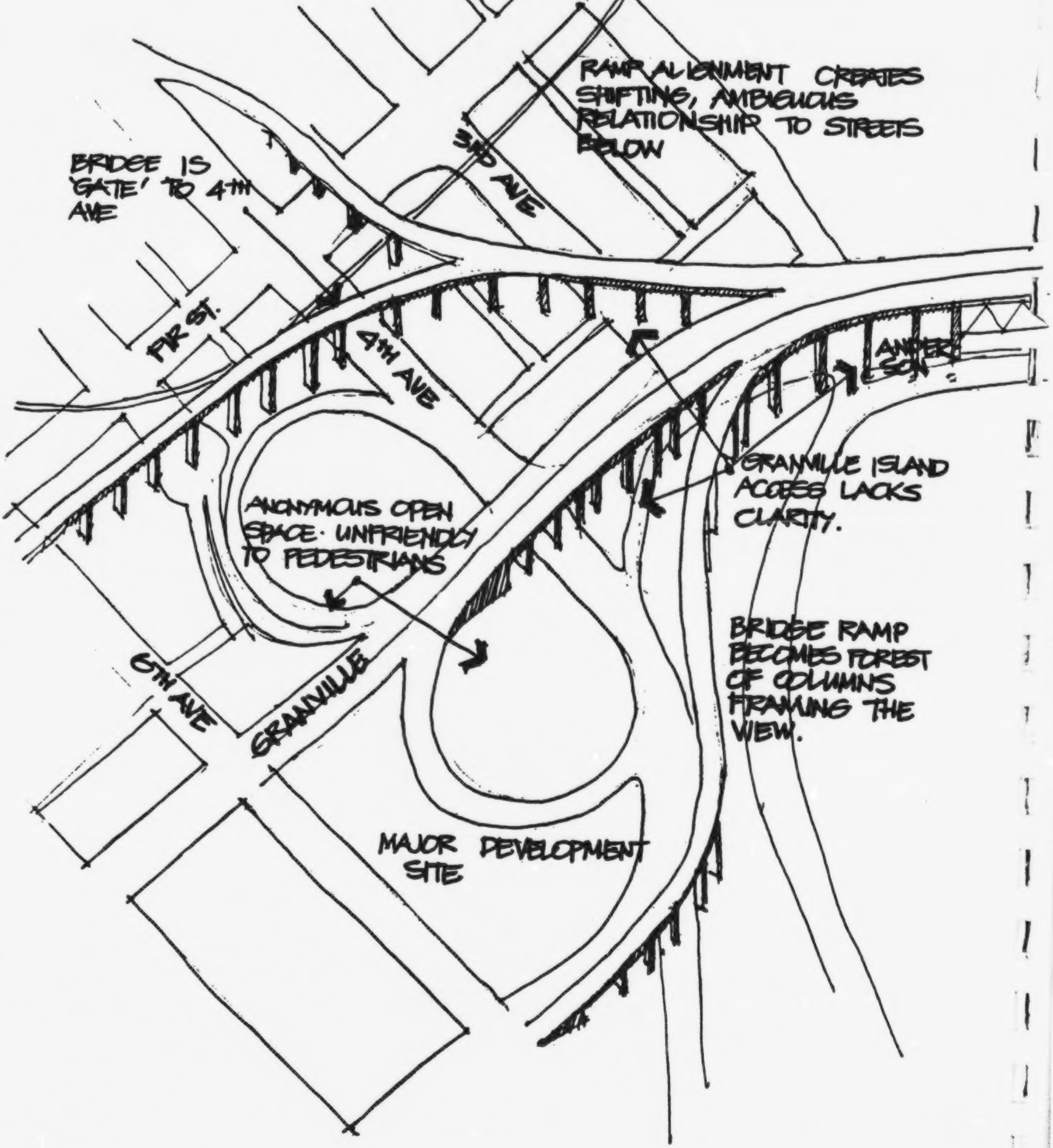
ENHANCE 6TH AVE AS FUTURE PEDESTRIAN LINK TO ALRT STATION

MAINTAIN LANE ACCESS TO PARKING

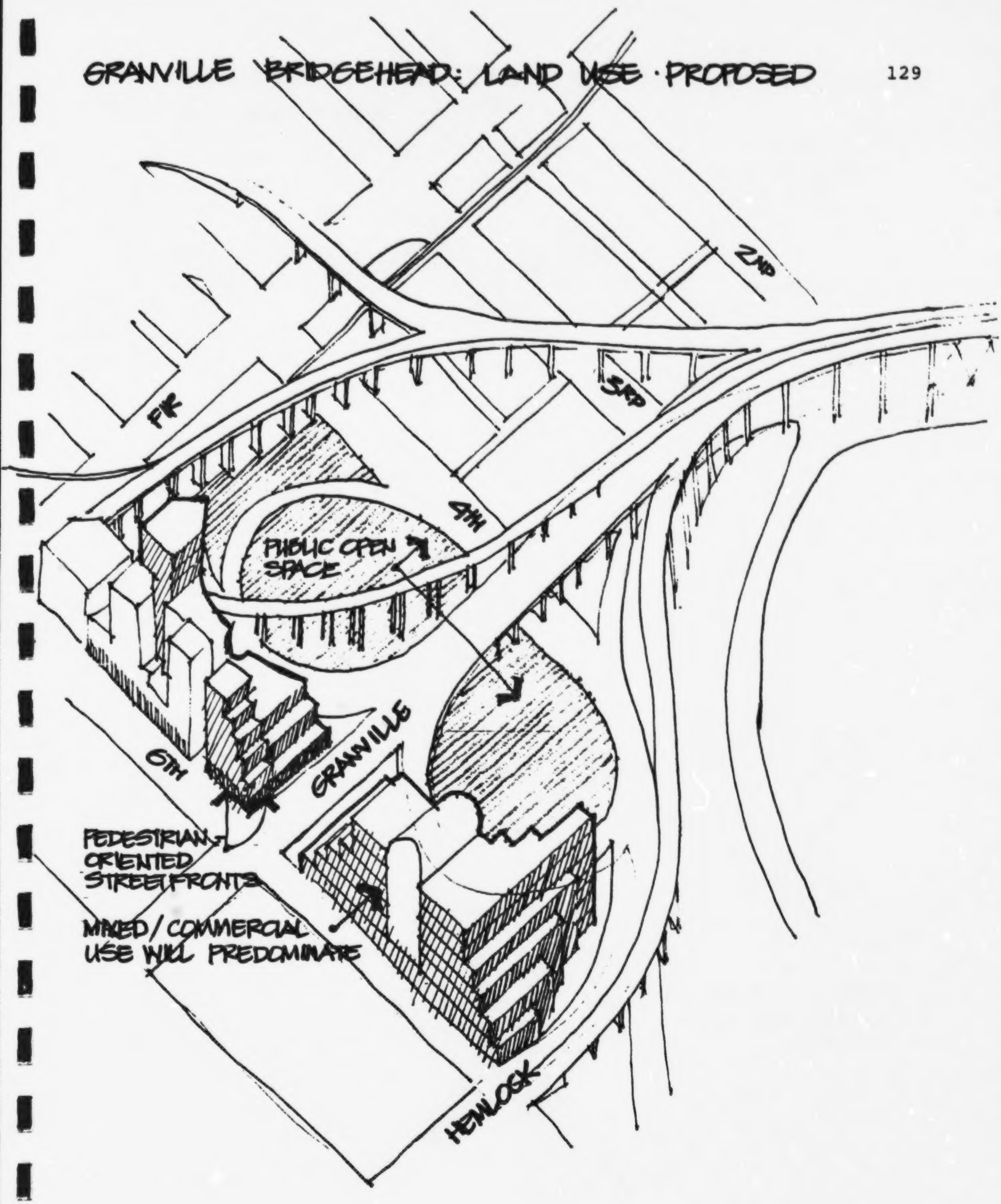
CONTINUE CANOPIES ON GRANVILLE

FIR ST.
GRANVILLE ST.
6TH AVE
7TH AVE
8TH AVE
HEMLOCK ST.

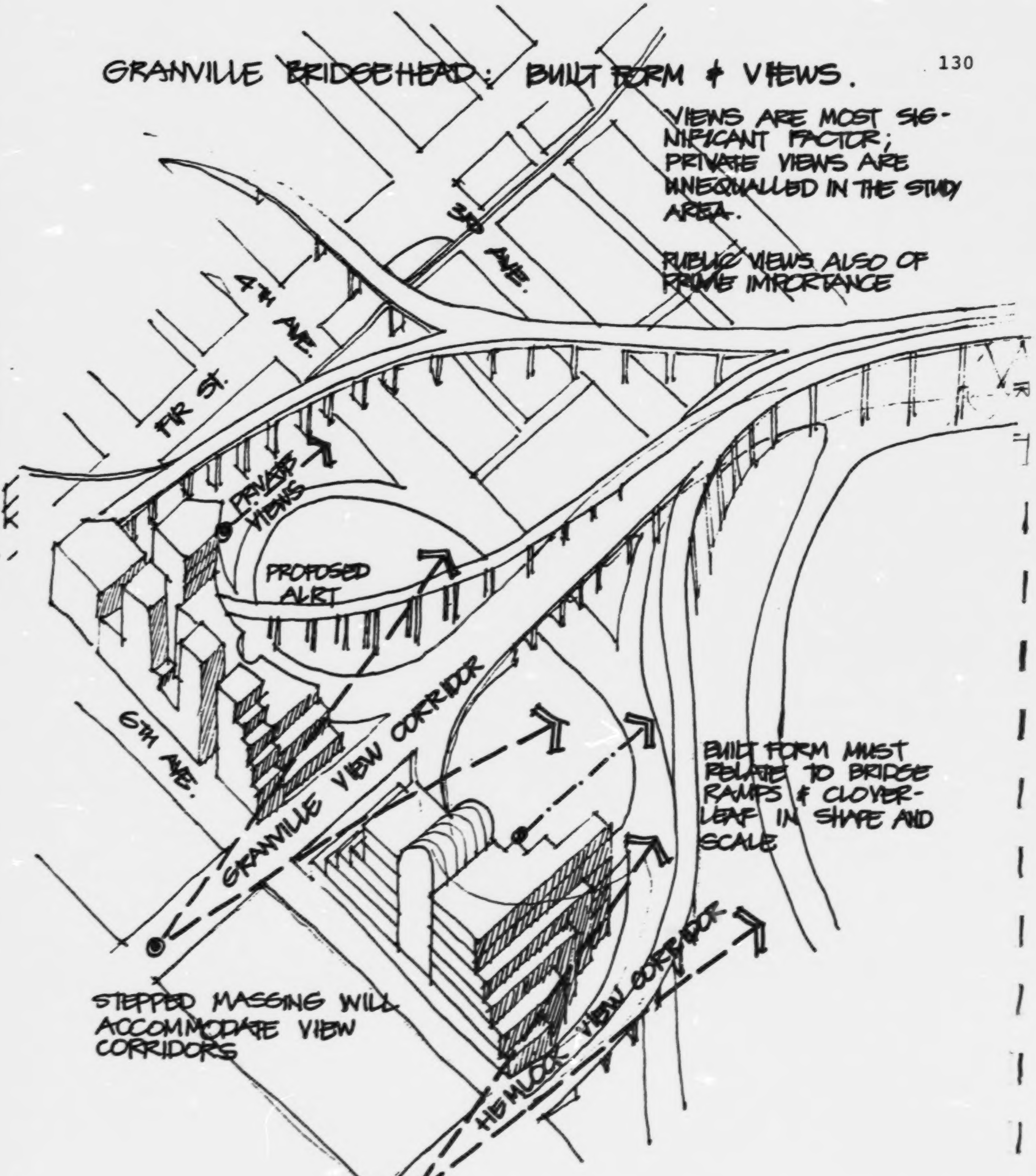
E.5 GRANVILLE BRIDGEHEAD : CONTEXT · EXISTING


RAMP ALIGNMENT CREATES SHIFTING, AMBIGUOUS RELATIONSHIP TO STREETS BELOW
BRIDGE IS 'GATE' TO 4TH AVE
3RD AVE
FIR ST.
4TH AVE
ANDERSON
GRANVILLE ISLAND ACCESS LACKS CLARITY.
ANONYMOUS OPEN SPACE · UNFRIENDLY TO PEDESTRIANS
6TH AVE
GRANVILLE
BRIDGE RAMP BECOMES FOREST OF COLUMNS FRAMING THE VIEW.
MAJOR DEVELOPMENT SITE

GRANVILLE BRIDGEHEAD: LAND USE · PROPOSED


2ND
3RD
FIR
4TH
PUBLIC OPEN SPACE
GRANVILLE
6TH
PEDESTRIAN-ORIENTED STREETFRONTS
MIXED/COMMERCIAL USE WILL PREDOMINATE
HEMLOCK

GRANVILLE BRIDGEHEAD: BUILT FORM & VIEWS.


3RD AVE.
4TH AVE.
FIR ST.
PRIVATE VIEWS
PROPOSED ALRT
6TH AVE.
GRANVILLE VIEW CORRIDOR
HEMLOCK VIEW CORRIDOR

VIEWS ARE MOST SIGNIFICANT FACTOR; PRIVATE VIEWS ARE UNEQUALLED IN THE STUDY AREA.

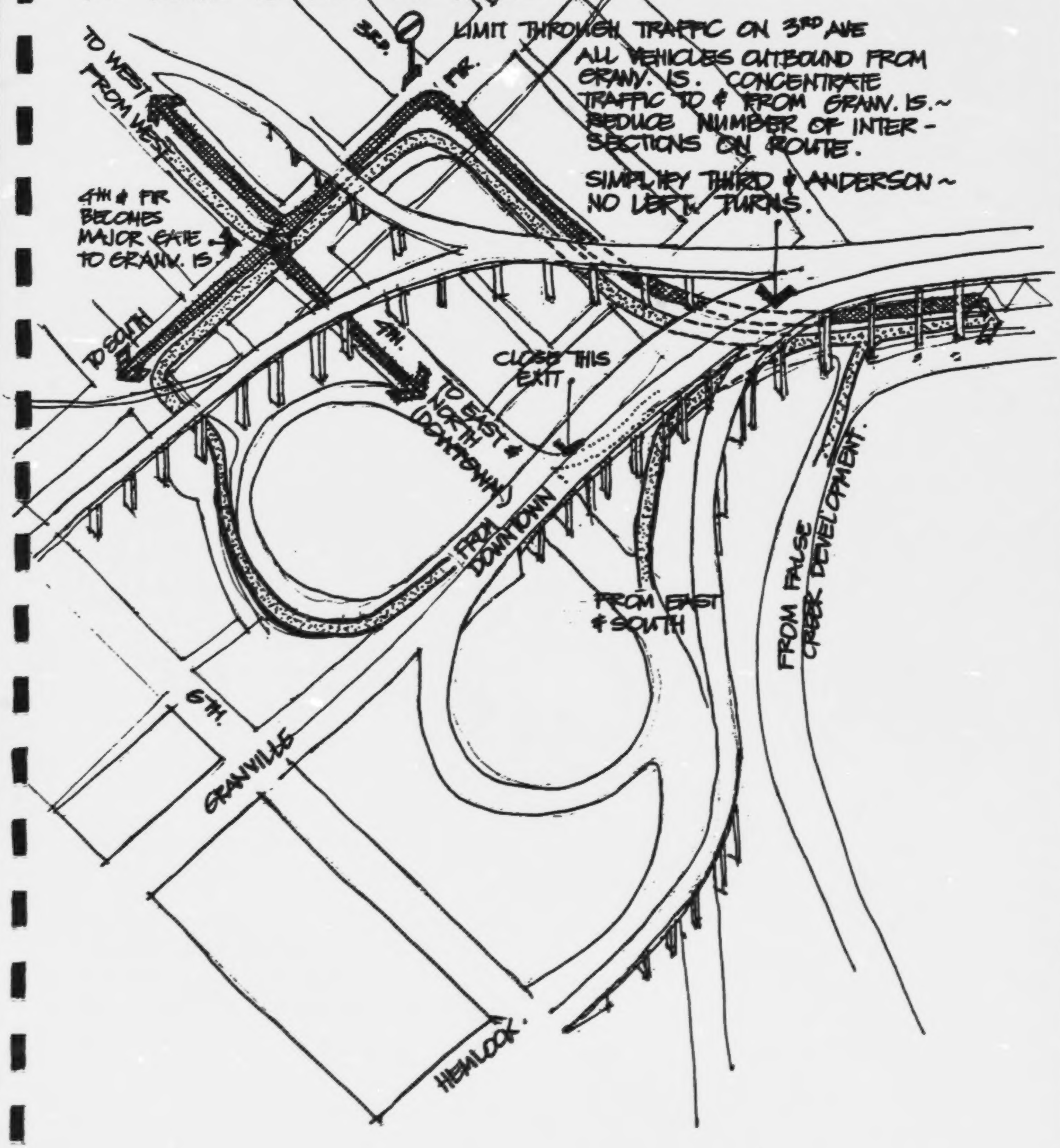
PUBLIC VIEWS ALSO OF PRIME IMPORTANCE

BUILT FORM MUST RELATE TO BRIDGE RAMPS & CLOVERLEAF IN SHAPE AND SCALE

STEPPED MASSING WILL ACCOMMODATE VIEW CORRIDORS

GRANVILLE BRIDGEHEAD: STREETS: AUTO

THE ROUTE TO GRANVILLE ISLAND.



3RD
FIR
TO WEST
FROM WEST
TO SOUTH
4TH
TO EAST & NORTH (DOWNTOWN)
FROM DOWNTOWN
FROM EAST & SOUTH
FROM FALSE CREEK DEVELOPMENT
6TH
GRANVILLE
HEMLOCK

LIMIT THROUGH TRAFFIC ON 3RD AVE

ALL VEHICLES OUTBOUND FROM GRANV. IS. CONCENTRATE TRAFFIC TO & FROM GRANV. IS.~ REDUCE NUMBER OF INTERSECTIONS ON ROUTE.

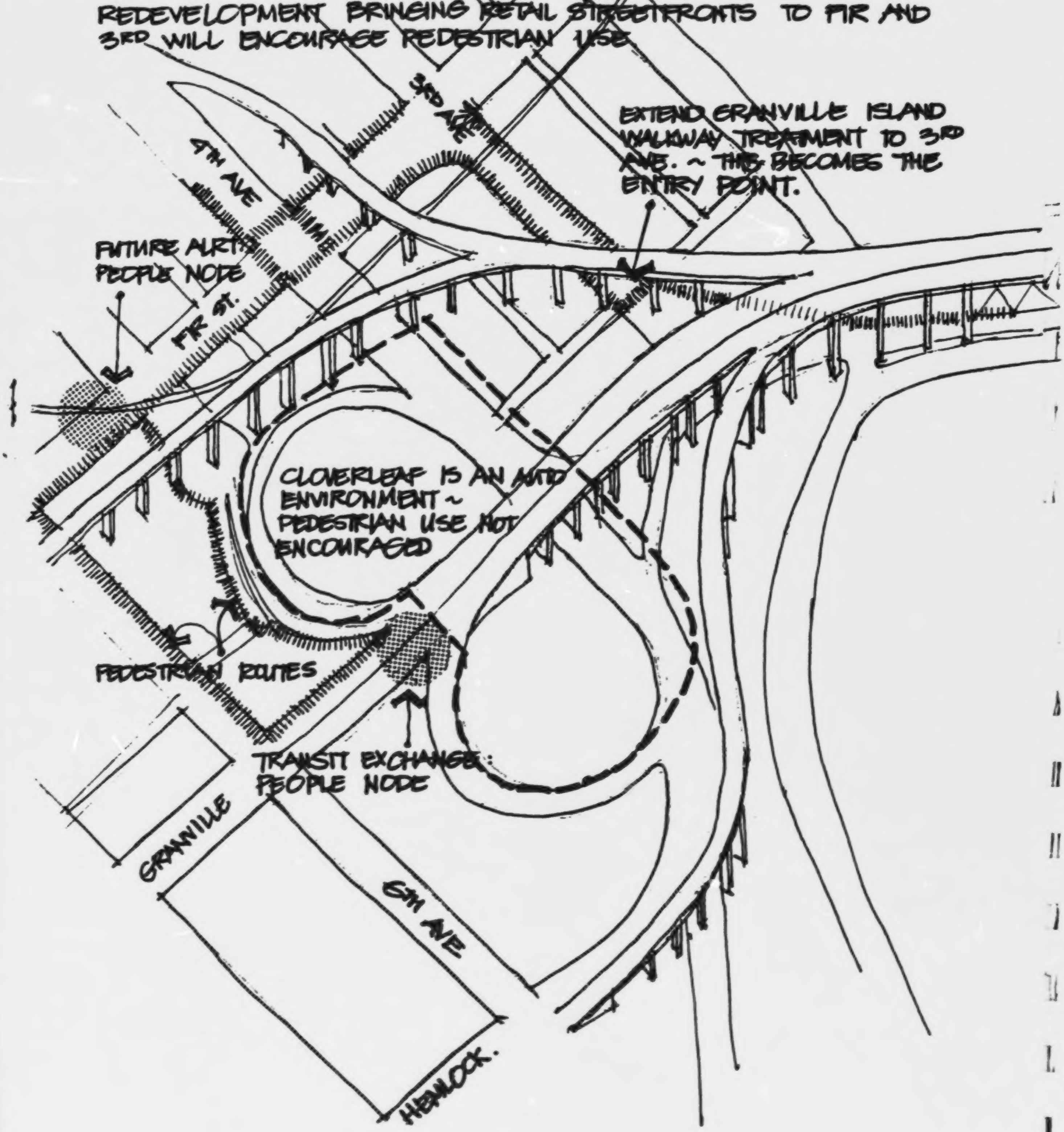
SIMPLIFY THIRD & ANDERSON ~ NO LEFT TURNS.

4TH & FIR BECOMES MAJOR GATE TO GRANV. IS.

CLOSE THIS EXIT

GRANVILLE BRIDGEHEAD: STREETS: PEOPLE

REDEVELOPMENT BRINGING RETAIL STREETFRONTS TO FIR AND 3RD WILL ENCOURAGE PEDESTRIAN USE



EXTEND GRANVILLE ISLAND WALKWAY TREATMENT TO 3RD AVE. ~ THIS BECOMES THE ENTRY POINT.

FUTURE ART: PEOPLE NODE

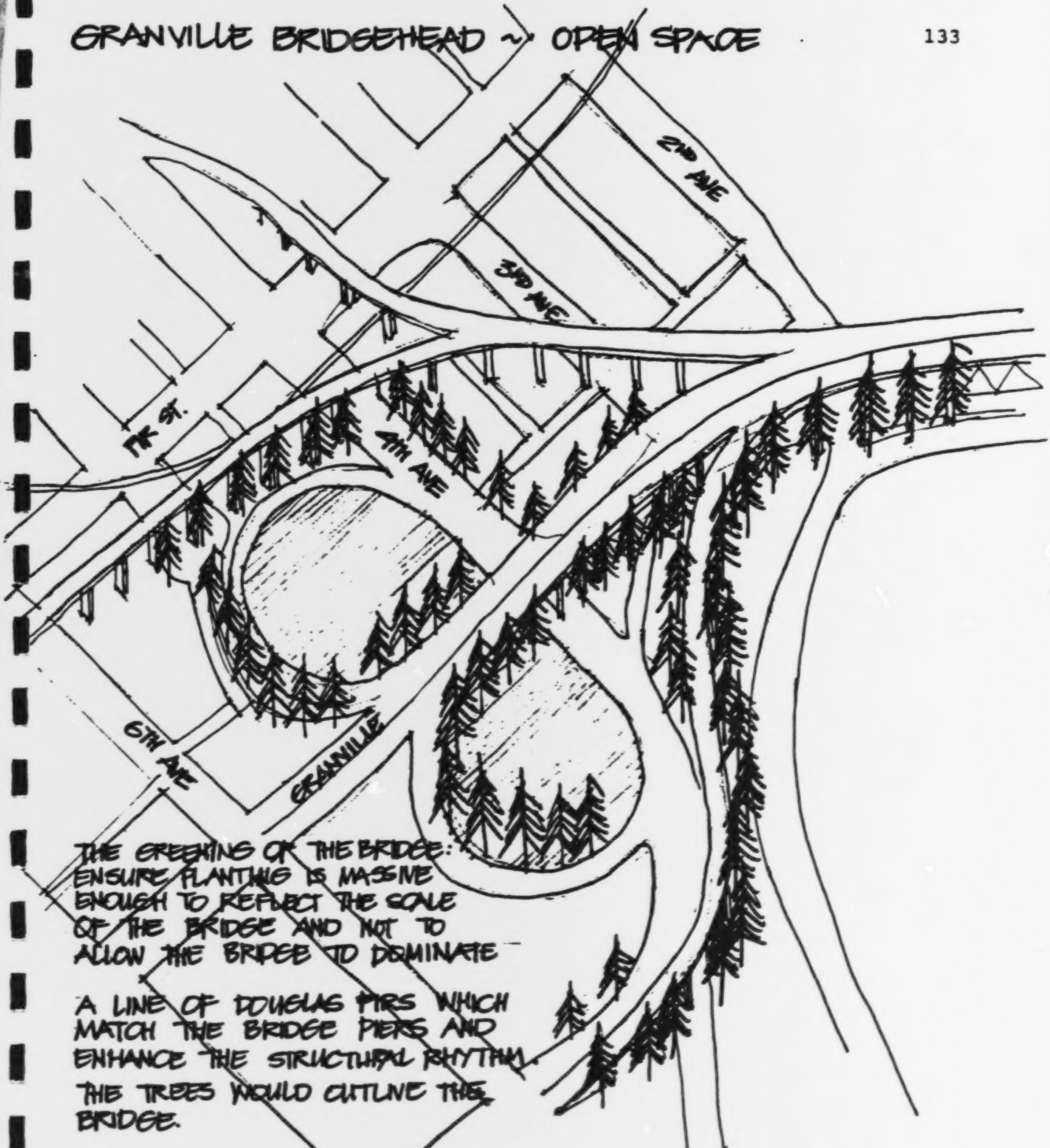
CLOVERLEAF IS AN AUTO ENVIRONMENT ~ PEDESTRIAN USE NOT ENCOURAGED

PEDESTRIAN ROUTES

TRANSIT EXCHANGE: PEOPLE NODE

3RD AVE
4TH AVE
FIR ST.
GRANVILLE
6TH AVE
HEMLOCK.

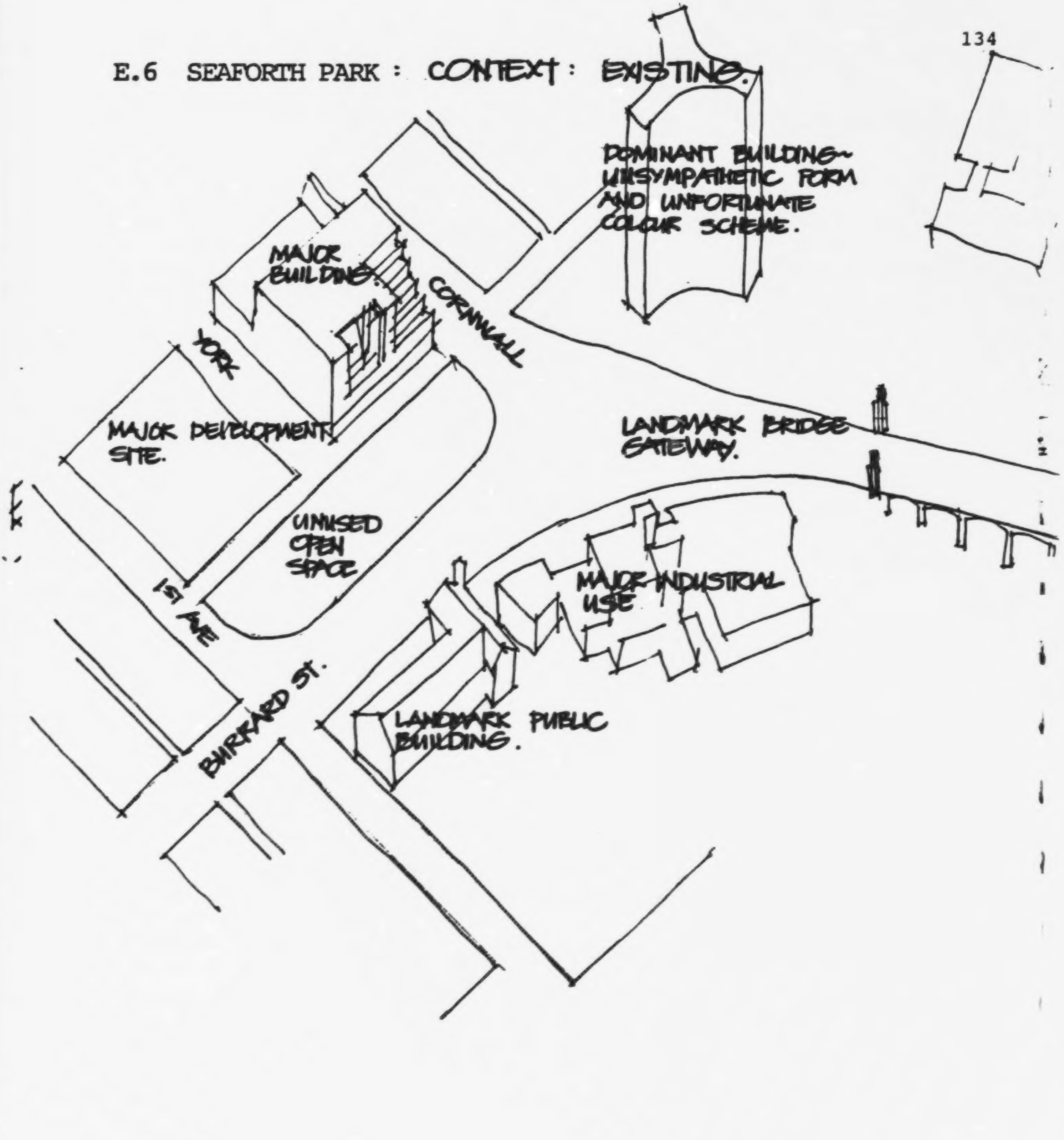
GRANVILLE BRIDGEHEAD ~ OPEN SPACE


2ND AVE
3RD AVE
5TH ST.
4TH AVE
6TH AVE
GRANVILLE

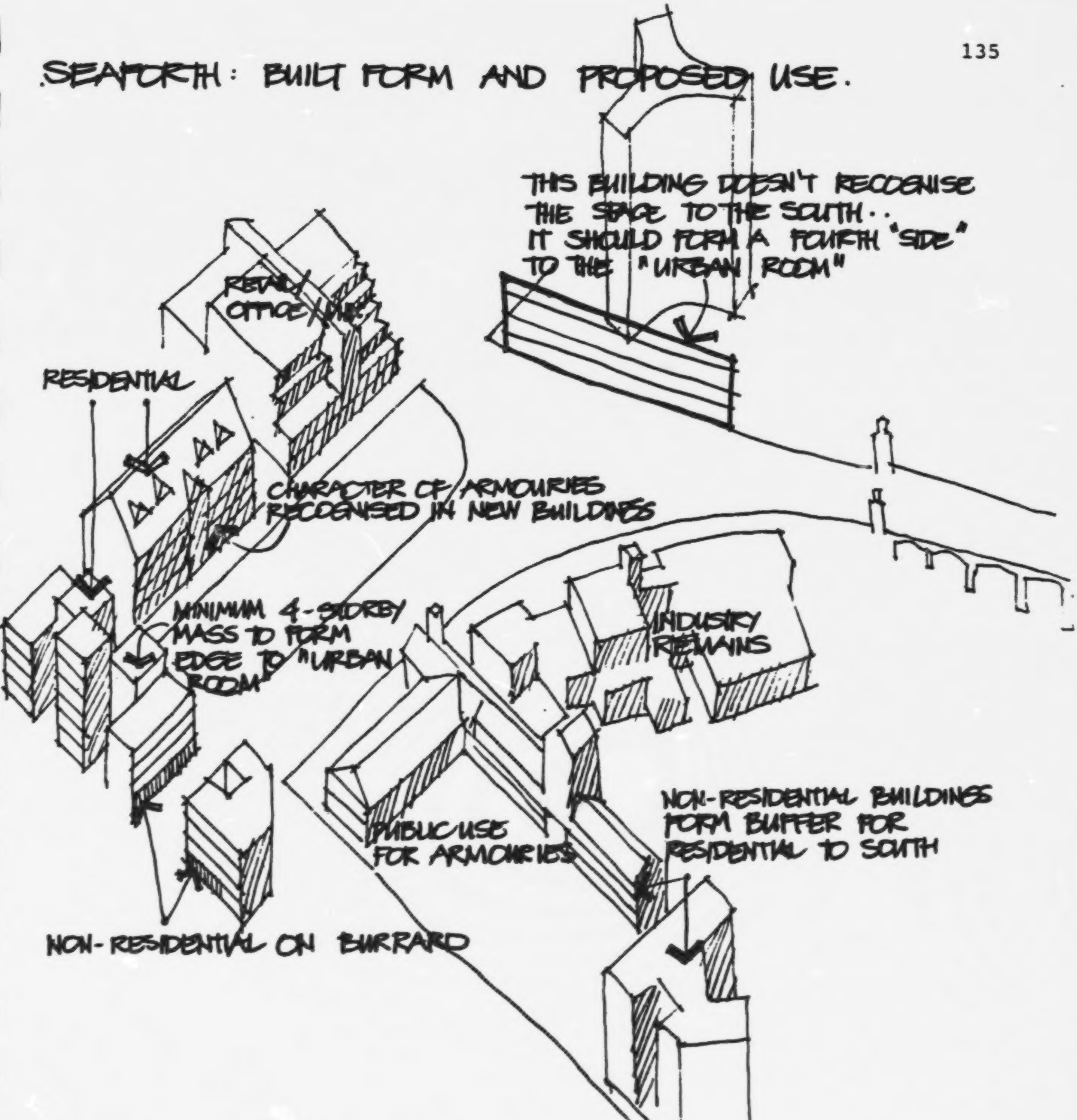
THE GREENING OF THE BRIDGE:
ENSURE PLANTING IS MASSIVE ENOUGH TO REFLECT THE SCALE OF THE BRIDGE AND NOT TO ALLOW THE BRIDGE TO DOMINATE

A LINE OF DOUGLAS FIRS WHICH MATCH THE BRIDGE PIERS AND ENHANCE THE STRUCTURAL RHYTHM. THE TREES WOULD OUTLINE THE BRIDGE.

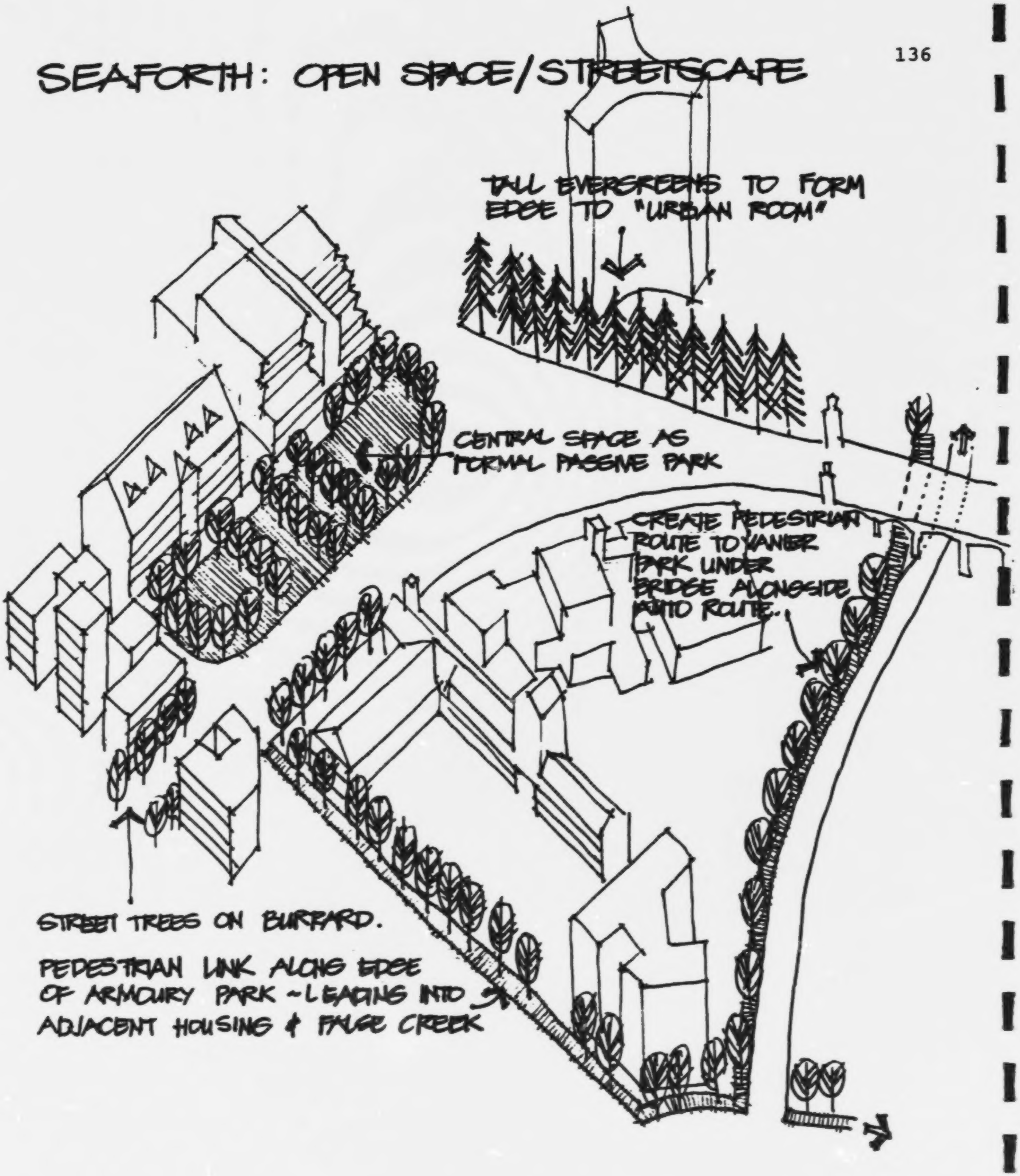
E.6 SEAFORTH PARK : CONTEXT : EXISTING.


DOMINANT BUILDING~
UNSYMPATHETIC FORM
AND UNFORTUNATE
COLOUR SCHEME.
MAJOR
BUILDING.
CORNWALL
YORK
MAJOR DEVELOPMENT
SITE.
LANDMARK BRIDGE
GATEWAY.
UNUSED
OPEN
SPACE
1ST AVE
MAJOR INDUSTRIAL
USE
BURRARD ST.
LANDMARK PUBLIC
BUILDING.

SEAFORTH: BUILT FORM AND PROPOSED USE.


THIS BUILDING DOESN'T RECOGNISE THE SPACE TO THE SOUTH.. IT SHOULD FORM A FOURTH "SIDE" TO THE "URBAN ROOM"
RETAIL/
OFFICE/
RESIDENTIAL
CHARACTER OF ARMOURIES RECOGNISED IN NEW BUILDINGS
MINIMUM 4-STOREY MASS TO FORM EDGE TO "URBAN ROOM"
INDUSTRY REMAINS
NON-RESIDENTIAL BUILDINGS FORM BUFFER FOR RESIDENTIAL TO SOUTH
PUBLIC USE FOR ARMOURIES
NON-RESIDENTIAL ON BURRARD

SEAFORTH: OPEN SPACE/STREETSCAPE



TALL EVERGREENS TO FORM EDGE TO "URBAN ROOM"

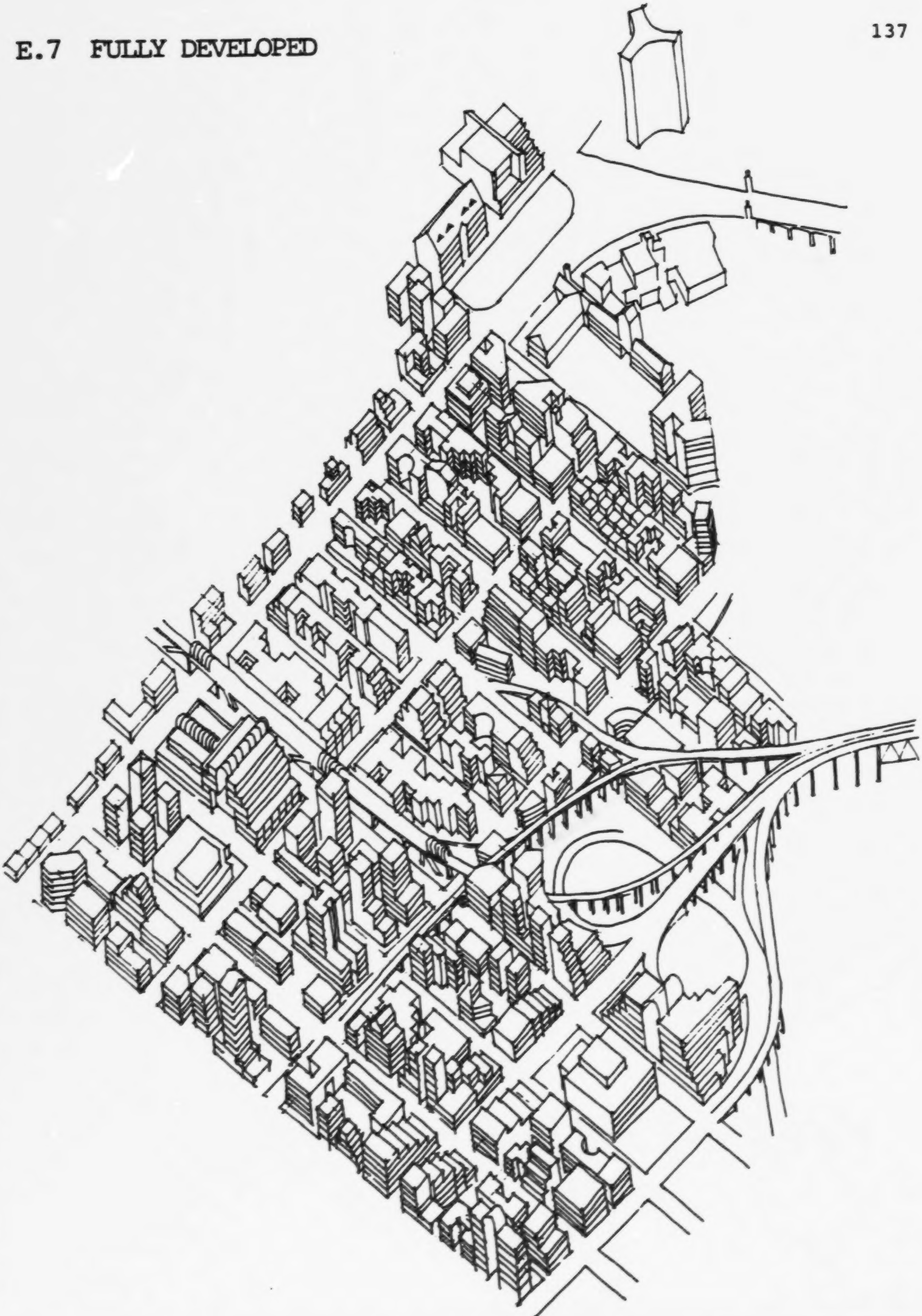
CENTRAL SPACE AS FORMAL PASSIVE PARK

CREATE PEDESTRIAN ROUTE TO VANIER PARK UNDER BRIDGE ALONGSIDE AUTO ROUTE.

STREET TREES ON BURRARD.

PEDESTRIAN LINK ALONG EDGE OF ARMOURY PARK - LEADING INTO ADJACENT HOUSING & FALSE CREEK

E.7 FULLY DEVELOPED



F CONCEPT PLAN

F CONCEPT PLAN

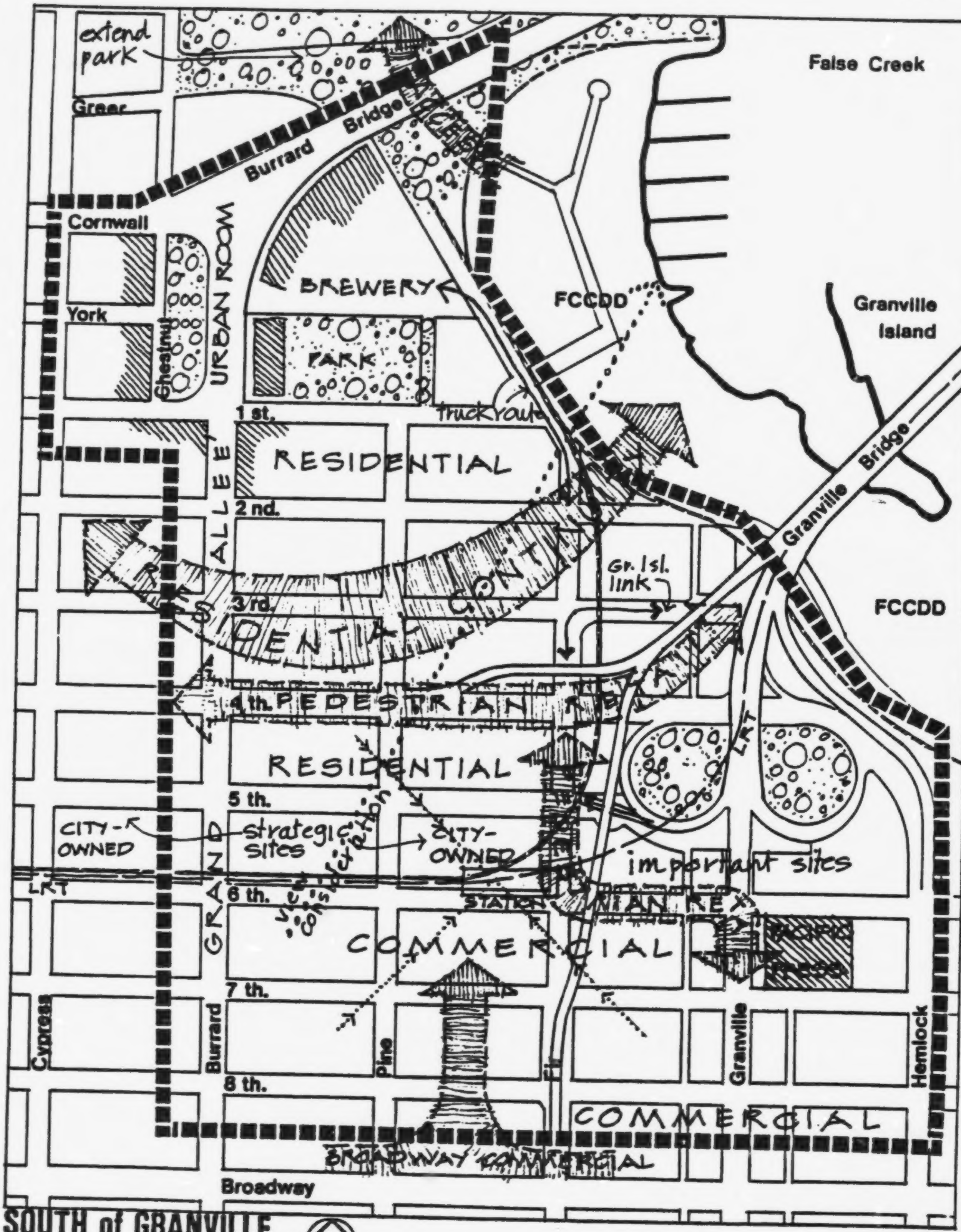
This section brings together the findings of the previous sections to show the likely result of the directions proposed at the end of a reasonably predictable planning period, that is to say about 15 or 20 years. This concept plan is depicted on map 12 page 142.

The basis of the concept plan is the land use recommendations from Section C. The major elements of the land use proposal are the new multiple family residential zone between 1st and Sixth Avenues and the extension of commercial zoning north to Sixth Avenue and east of Fir Street north to 3rd Avenue. These proposals will connect the FCCDD residential with the Kitsilano residential, capitalizing on the amenities of the area and consolidate the growing commercial uses north of Broadway between Burrard and Hemlock Streets. Retail content is strongly recommended along 4th Avenue at street level linking into the commercial area on block 240, between 3rd and 4th Avenue east of Fir Street. This commercial area should complement the Granville Market retail with the personal services facilities needed for the FCCDD residential and the new residential in the study area.

The circulation retains the existing major arteries and local transit routes. If Burrard Street develops for commercial and institutional uses, it appears appropriate to establish a local transit route from downtown along Burrard to at least Broadway. The principal vehicular addition is the Fir Street extension under Burrard Bridge linking into Vanier Park. This new route would provide vehicular and transit access to the Vanier Park facilities. Since Molson's Brewery will remain, an improved truck route is proposed trading part of the Osborne Propellor site for the existing access and making Fir Street a direct truck route to 4th Avenue. Specific pedestrian routes within the study area are the extension of the False Creek seawall walk into Kitsilano and the diversion of the current route from the bus interchange at 6th and Granville Street to swing toward Fir Street and ultimately to 3rd Avenue and into FCCDD and Granville Island. The proposed location of the LRT station close to Fir Street on 6th

Avenue will generate a network of feeder pedestrian routes. Existing public open spaces, Seaforth Park and the Granville Bridgehead will be retained. Vanier Park should be extended under the Burrard Bridge using the former B.C. Hydro Rail yards. It is strongly recommended that the Seaforth Armories site and building be obtained to establish a community center recreation hall and park.

The form of the topography will be retained with higher structures on the upper slopes and development north and below that arranged to protect the views to the downtown.


extend park
Greer
Burrard Bridge
Cornwall
York
Chestnut
URBAN ROOM
BREWERY
PARK
FCCDD
False Creek
Granville Island
truck route
1 st.
RESIDENTIAL
2 nd.
GRAND ALLEE
RESIDENTIAL CONTINUITY
3 rd.
Gr. Isl. link
Granville Bridge
FCCDD
4 th. PEDESTRIAN
LRT
RESIDENTIAL
5 th.
CITY-OWNED
strategic sites
CITY-OWNED
view corridor
important sites
6 th.
STATION
COMMERCIAL
7 th.
Cypress
Burrard
Pine
Granville
Hemlock
8 th.
COMMERCIAL
BROADWAY COMMERCIAL
Broadway

SOUTH of GRANVILLE ISLAND STUDY TWCG consultants

CONCEPT PLAN MAP 12

F.1 SUB AREA 1

Sub-Area 1 FALSE CREEK PLATEAU
65.5 acres (26.5 ha) gross area

PRESENT FORM

- low warehousing and light industrial buildings on level ground.
- grouping of major permanent buildings around Seaforth Park including Molson's Brewery.
- provides access to FCCDD and Granville Island.
- orientation toward FCCDD residential.

PROPOSED LAND USE

- re-zone light industrial area to a new residential area, taking advantage of False Creek amenities.
- new residential area to a maximum extent of 21.5 acres for multi-family housing similar to that in FCCDD or Kitsilano.
- ultimate residential development 1400-1500 [redacted] units at approximately 70 [redacted] d.u.a. depending on extent of retail facilities at street level on 4th Avenue and Burrard St.
- Seaforth Armories site becomes a public park and community centre.
- re-zone areas adjacent to and under Granville Bridge to commercial, in order to serve FCCDD and adjacent new residential areas, and to complement Granville Island services
- when B.C. Hydro Rail lands beneath Burrard Bridge become available, they will become an extension of Vanier Park.

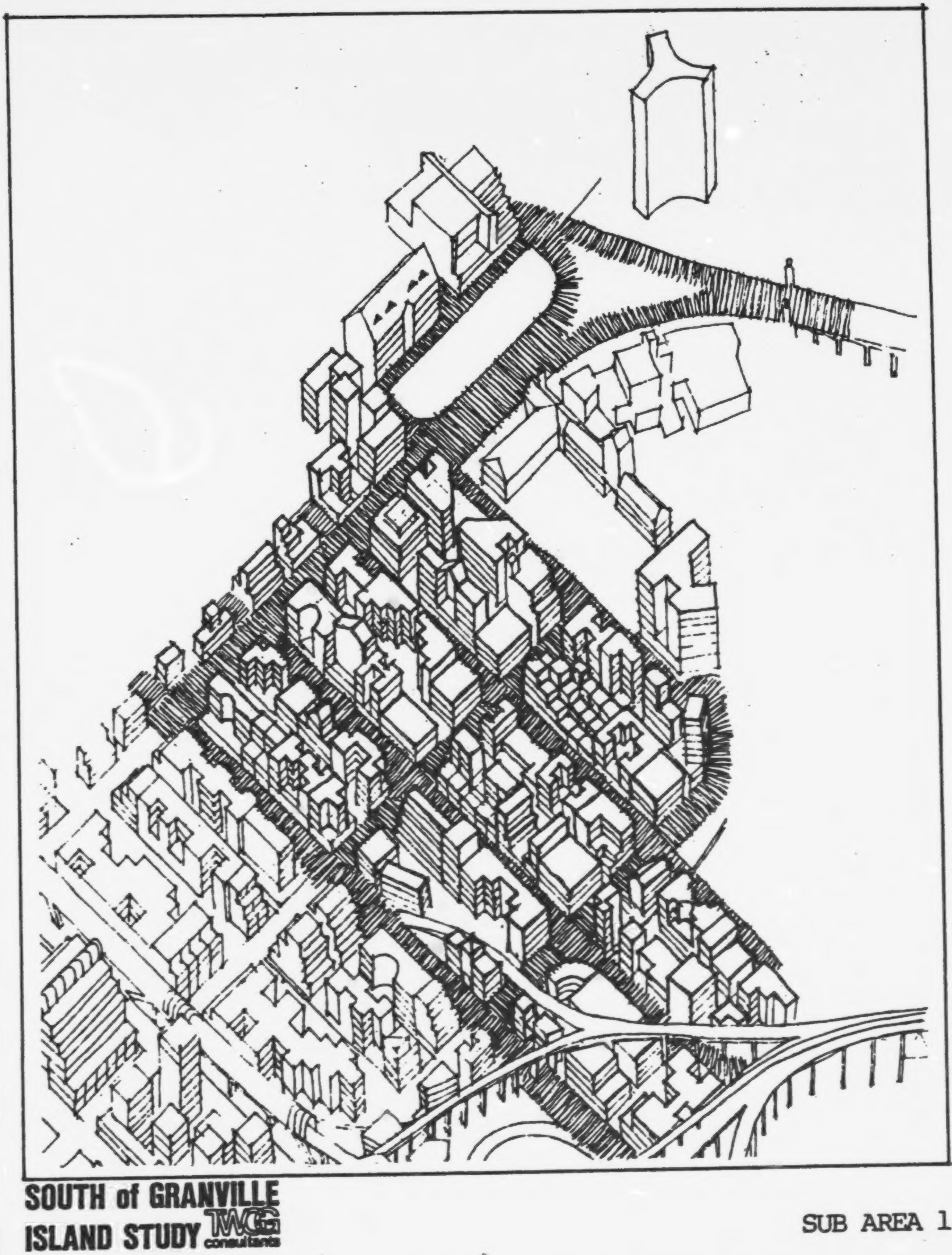
PROPOSED CIRCULATION

- vehicular traffic to be concentrated on 1st avenue and Fir Street.
- a new road extending Fir Street will pass under Burrard Bridge, serving FCCDD Area 10 and Vanier Park; it will also serve to extend the False Creek bus loop.

- pedestrian routes will link into FCCDD and Granville Island at Fir Street and 3rd Ave. - Anderson Street.
- Granville Island traffic will use the 3rd Avenue - Anderson Street route.
- trucks will use the Fir Street route with an improved direct route to Molson's Brewery.

PROPOSED BUILT FORM

- the general form will respect the views from the south, by maintaining a low profile related to the Granville Bridge levels and FCCDD heights.
- new residential buildings will be low to medium-rise relating to grade as much as possible and arranged to maximize solar penetration.
- the already developing 'urban room' around Seaforth Park will be encouraged, with the potential for an avenue of larger institutional buildings along Burrard Street.



SUB AREA 1

F.2 SUB AREA 2 NORTH

Sub-Area 2 PINE STREET SLOPES
45 acres (18 ha) gross area

Sub-Area 2N PINE STREET SLOPES NORTH

PRESENT FORM

- low warehousing and light industrial buildings at the base of the hill which rises to Broadway.

PROPOSED LAND USE

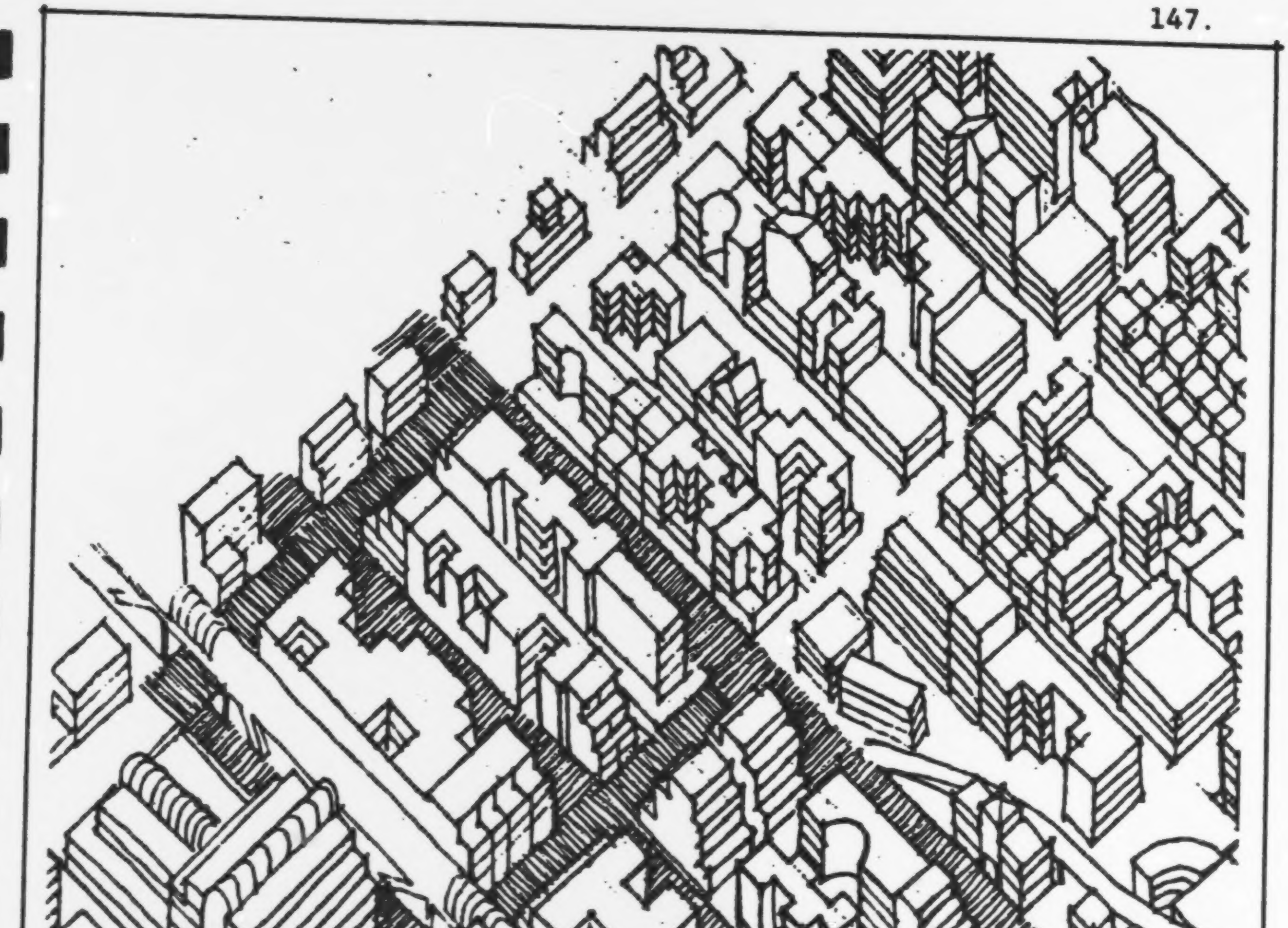
- re-zone generally to a new multi-family area to a maximum of 11.5 acres.
- ultimate residential development 600 to 700 units at approximately 70 d.u.a. depending on extent of retail facilities at street level on 4th Avenue and Burrard Street.
- re-zone areas east of Fir Street adjacent to Granville Bridge ramps and B.C. Hydro Rail R.O.W. to commercial.

PROPOSED CIRCULATION

- Fir Street becomes more prominent, linking into the FCCDD-Granville Island entrance; the off-ramp from Granville Bridge will connect to Fir Street at 5th Avenue to give an easy vehicular route from downtown.
- a pedestrian route will be developed along Fir Street to connect the L.R.T. station node to the False Creek area.

PROPOSED BUILT FORM

- the general form will respect the views from the developments up the slope to the south.
- new residential buildings will be low to medium-rise, relating to grade as much as possible and arranged to maximize solar penetration.
- Burrard Street will form an avenue of larger institutional buildings.



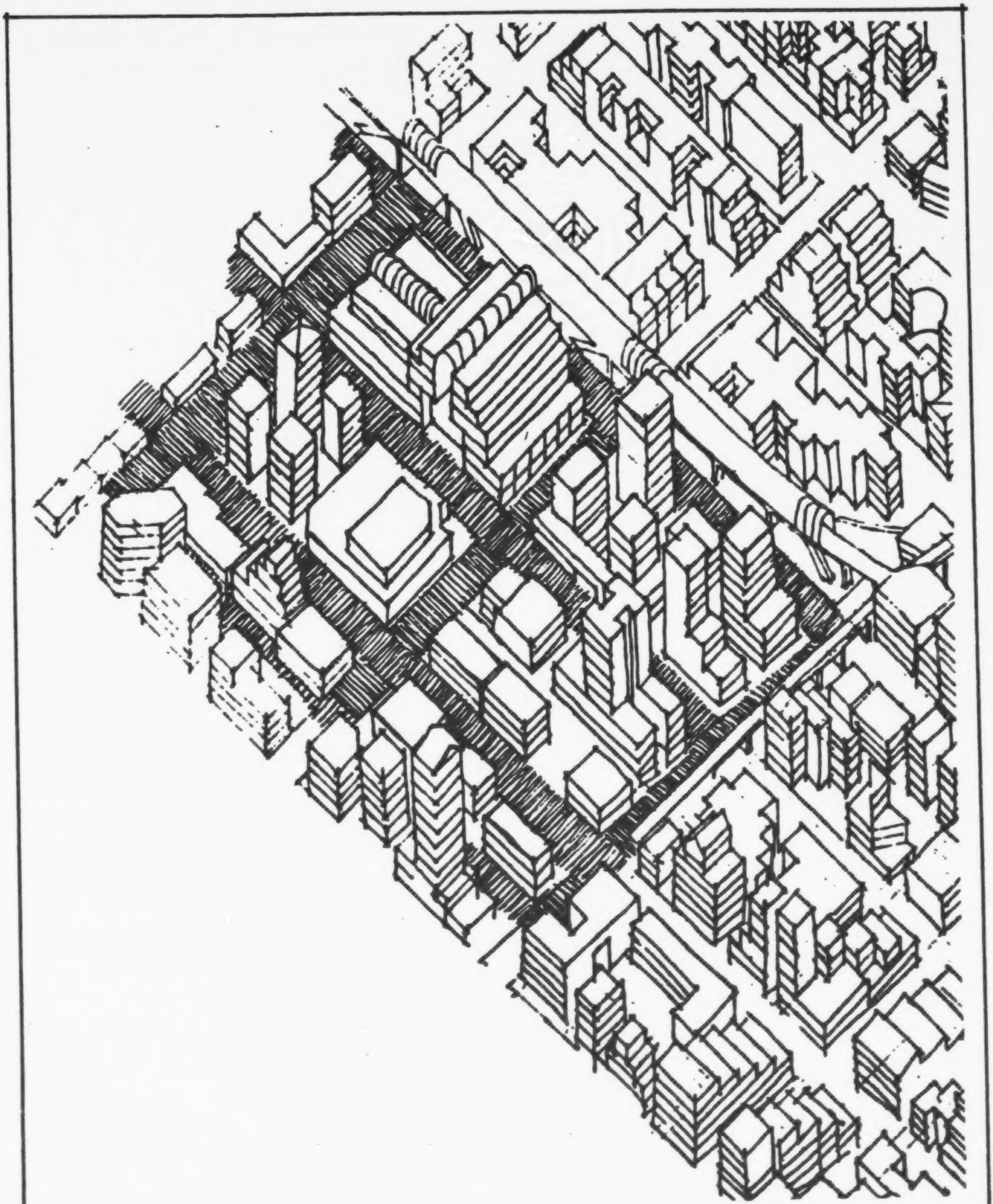
SOUTH of GRANVILLE ISLAND STUDY

SUB AREA 2 NORTH

F.3 SUB AREA 2 SOUTH

Sub-Area 2S PINE STREET SLOPES SOUTH

PRESENT FORM	• generally two to three storey commercial buildings stepping up the slope to taller buildings along the crest at Broadway. • the base of the slope is marked by the increased width of 6th Avenue created by the B.C. Hydro R.O.W.
PROPOSED LAND USE	• extend the present commercial use north to 6th Avenue, replacing the light industry; this will increase the net site area zoned commercial by 22% to about 655,000 sq.ft. total, including the previous CD zone. • it is anticipated that some residential units will develop on upper floors where views and amenities are available.
PROPOSED CIRCULATION	• the L.R.T. line along 6th Avenue with a station near Fir Street will be a major feature, generating pedestrian movement.
PROPOSED BUILT FORM	• buildings will generally step up the slope with those on the lower slopes respecting the views from those above. • Burrard Street will continue the avenue of larger institutional buildings continuing up from Seaforth Park, terminating at Broadway.

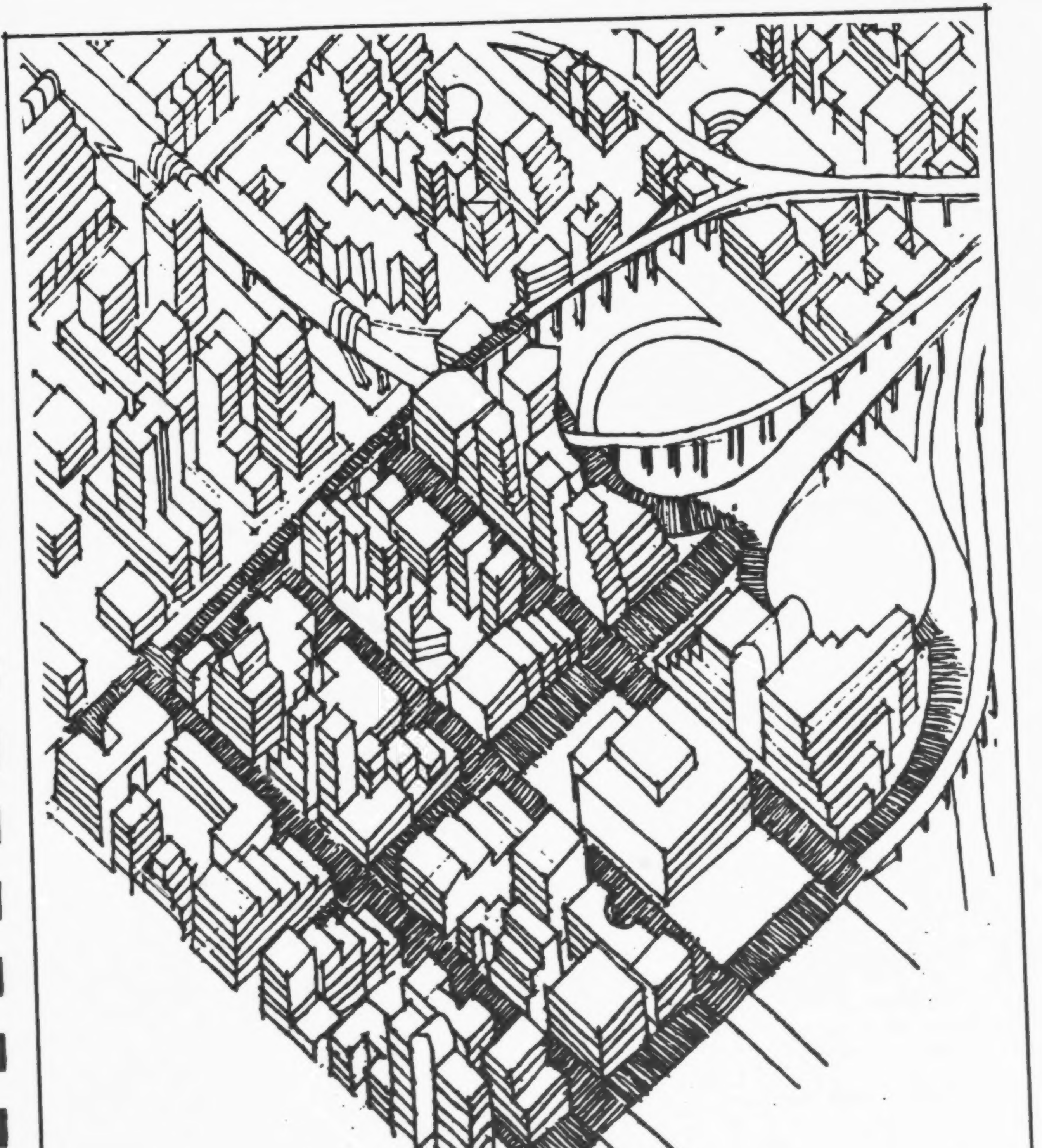


SUB AREA 2 SOUTH

F.4 SUB AREA 3

Sub-Area 3 GRANVILLE BUSINESS
36 acres (14.5 ha) gross area

PRESENT FORM	• the sub-area focuses on the commercial strip along Granville Street, with buildings stepping up the slope. • the Pacific Press building, the Masonic Lodge and other commercial buildings along Hemlock Street create a bulky barrier to the east and orient this sub-area to the northwest.
PROPOSED LAND USE	• extend the present commercial use north to the edge of the Granville Bridgehead, replacing the light industrial; this will increase the net site area zoned commercial by 74% to about 700,000 sq.ft. total • it is anticipated that some residential units will develop on upper floors where views and amenities are available.
PROPOSED CIRCULATION	• the L.R.T. route will come off the Granville Bridge and pass under the Fir Street ramp to the station near 6th Avenue at Fir Street. • the proximity of the transit interchange on Granville Street at 6th Avenue and the L.R.T. station one block west near Fir Street will generate pedestrian movement between the two, along 6th Avenue, linking the Granville Street retail with the Fir Street connection to False Creek.
PROPOSED BUILT FORM	• buildings will generally step up the slope with those on the lower slopes respecting the views from those above. • the focus of the sub-area will be on to Granville Street, culminating in major buildings at the edge of the Granville Bridgehead open space.



SUB AREA 3

F.5 STATISTICAL DATA

Sub-Area 1 FALSE CREEK PLATEAU STATISTICAL SUMMARY OF NET SITE AREAS
(by square feet, rounded off for convenience)

ZONING	EXISTING	PROPOSED	CHANGE	REMARKS
M-2	465,000	540,000	+75,000	Molson's Brewery and Osborne Propellor sites. Armories Park could be deleted
M-1	976,500	-	-976,500	Largely to new residential
M-1A	140,000	70,000	-70,000	
CD	-	70,000	+70,000	Bekins Storage site
C-2	75,000	-	-75,000	Taken into M-2 or as park
C-2B	65,000	-	-65,000	To new residential
C-3A	62,500	108,000	+35,500	To new residential and Block 240 added
New Resid.	-	936,000	+936,000	Most of M-1 and C-2B C-3A
Public Open Space	-	1) 175,000		1. Armories site
		2) 200,000		2. *B.C. Hydro Rail lands
		3) 60,000		3. Granville Bridgehead North of 4th Ave.
		435,000	+435,000	

Notes:

*Land within study area only. Seaforth Park is not included in statistics, since it is not presently zoned.

Area 80,000 s.f.

Sub-Area 2N PINE STREET SLOPES NORTH STATISTICAL SUMMARY OF NET SITE AREAS (by square feet, rounded off for convenience)

ZONING	EXISTING	PROPOSED	CHANGE	REMARKS
M-1	488,000	-	-488,200	Mostly to new residential
C-2B	12,500	-	- 12,500	To new residential
C-3A	32,500	40,000	+ 7,500	To new residential, east of Fir St. added.
New Resid.	-	493,200	+493,200	From M-1 and C-2B, C-3A

Sub-Area 2S PINE STREET SLOPES SOUTH STATISTICAL SUMMARY OF NET SITE AREAS (by square feet, rounded off for convenience)

ZONING	EXISTING	PROPOSED	CHANGE	REMARKS
M-1	119,000	-	-119,000	To Commercial C-3A
C-3A	419,500	657,500	+238,000	50% from M-1
CD	119,000	-	-119,000	Assuming CD becomes C-3A

Sub-Area 3 - GRANVILLE BUSINESS STATISTICAL SUMMARY OF NET SITE AREAS (by square feet, rounded off for convenience)

ZONING	EXISTING	PROPOSED	CHANGE	REMARKS
M-1	303,000	-	-303,000	To commercial C-3A
C-3A	411,000	714,000	+303,000	
Granville Bridgehead M-1	320,000	-	-320,000	Land nominally zoned M-1 but not feasible
Public Open Space	-	320,000	+320,000	For industrial use around cloverleafs south of 4th Avenue

STATISTICAL SUMMARY OF NET SITE AREAS FOR CONCEPT PLAN (by square feet, rounded off for convenience)

Sub Area	M-1	M-2	C-3A	New Resid.	Public Open Space
1 False Creek Plateau	-	540,000 (365,000)	108,000	936,000	375,000
2N Pine St. Slopes North	-	-	40,000	493,200	-
2S Pine St. Slopes South	-	-	657,500	-	-
3 Granville Business	-	-	714,000	-	-
TOTAL PROPOSED:	-	540,000 (365,000)[1]	1,519,500	1,429,200	375,000[2]
TOTAL PREVIOUSLY:	1,780,000	465,000	1,003,000[3]	-	-

Notes:

[1] Bracketed figure if Armories site is public open space.

[2] Includes Armories site and B.C. Hydro Rail lands, but not Granville Bridgehead areas.

[3] Combines C-3A and C-2B areas.

The summary of net site areas reflects the general proposals of the study. The loss of M-1 Light Industrial land is a result of changing conditions within the city, especially the new amenities of False Creek. The retention of most of the M-2 Industrial land is largely the result of the permanency of the Molson's Brewery operation. The increase by about 50% of commercial land represents the consolidation of areas south of 6th Avenue which were already largely in commercial use. As well, lands overshadowed by the bridge and approaches which would be unsuitable for residential use are included. The major addition is the new residential zone which is mainly the former M-1 zone. Its total area of 1,429,000 sq.ft. or 33 acres, could ultimately contain about 2,200 units at 70 units per acre. Since full development depends on the replacement of existing light industrial buildings, there may only be a few hundred residential units initially and full development will take many years.

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APPENDICES

APPENDIX A

STATUS MAPS

The following maps record in finer detail the information presented on Maps 2, 3, 4, 5 and 6 in Section A-7 pages 20 and 34 to 37.

Map 2a OBSERVED LAND USE

on-site observations spring 1982

Map 3a BUILDING QUALITY

on-site observations spring 1982

Map 4a LAND VALUE

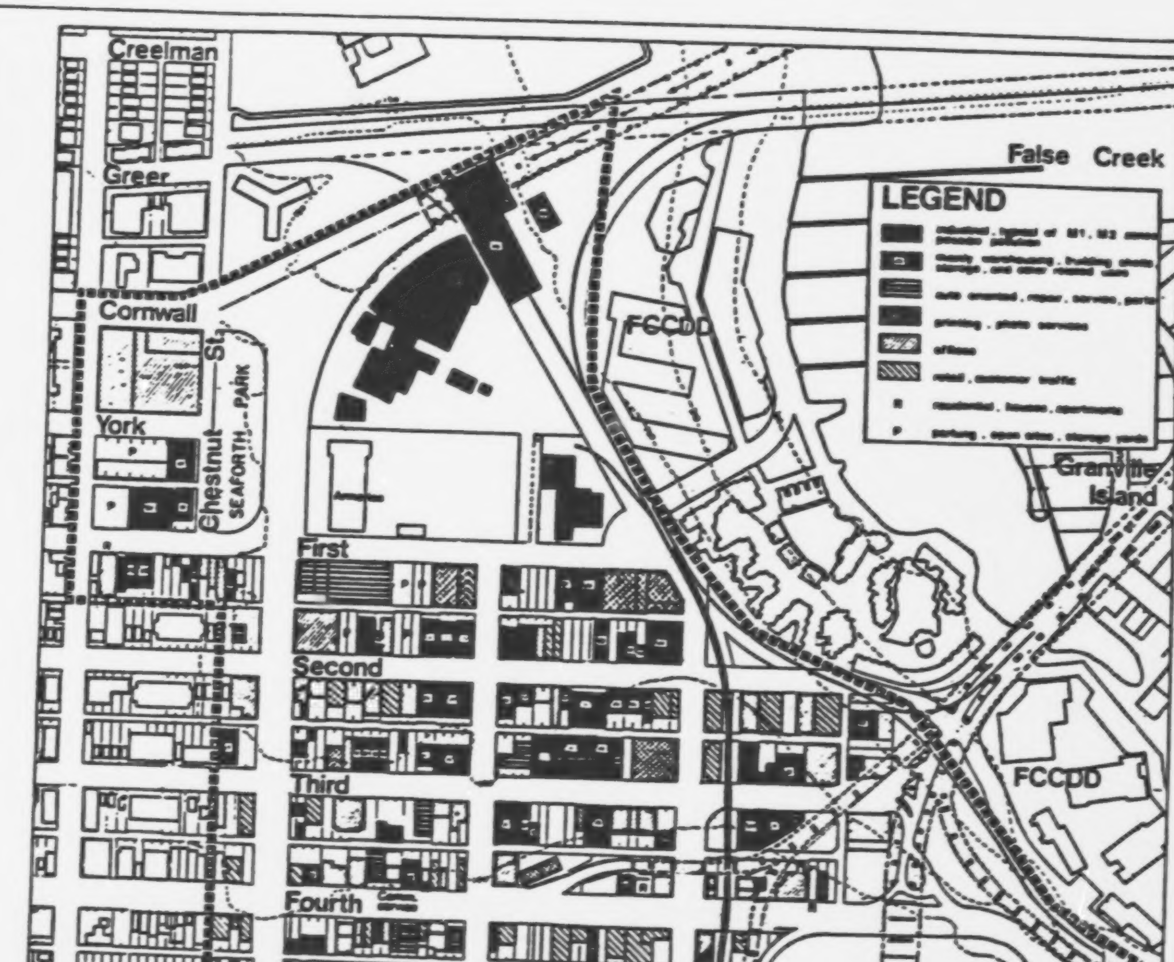
from 1981 assessment roles, dollars per sq. ft. given reflect relative values

Map 5a RATIO LAND VALUE TO IMPROVEMENT

based on 1981 assessment roles

Map 6a LAND ASSEMBLIES

where more than two adjacent properties are owned together and major sites


Creelman
Greer
Cornwall
York
Chestnut St.
SEAFORTH PARK
False Creek
LEGEND
auto oriented, repair, service, parts
printing, photo services
offices
retail, customer traffic
residential, houses, apartments
parking, open sites, storage yards
FCCDD
Granville Island
First
Second
Third
Fourth
Fifth
C. P. R.
Sixth
Seventh
Eighth
Broadway
Cypress St.
Burrard St.
Pine St.
Fir St.
Granville St.
Hemlock St.
N

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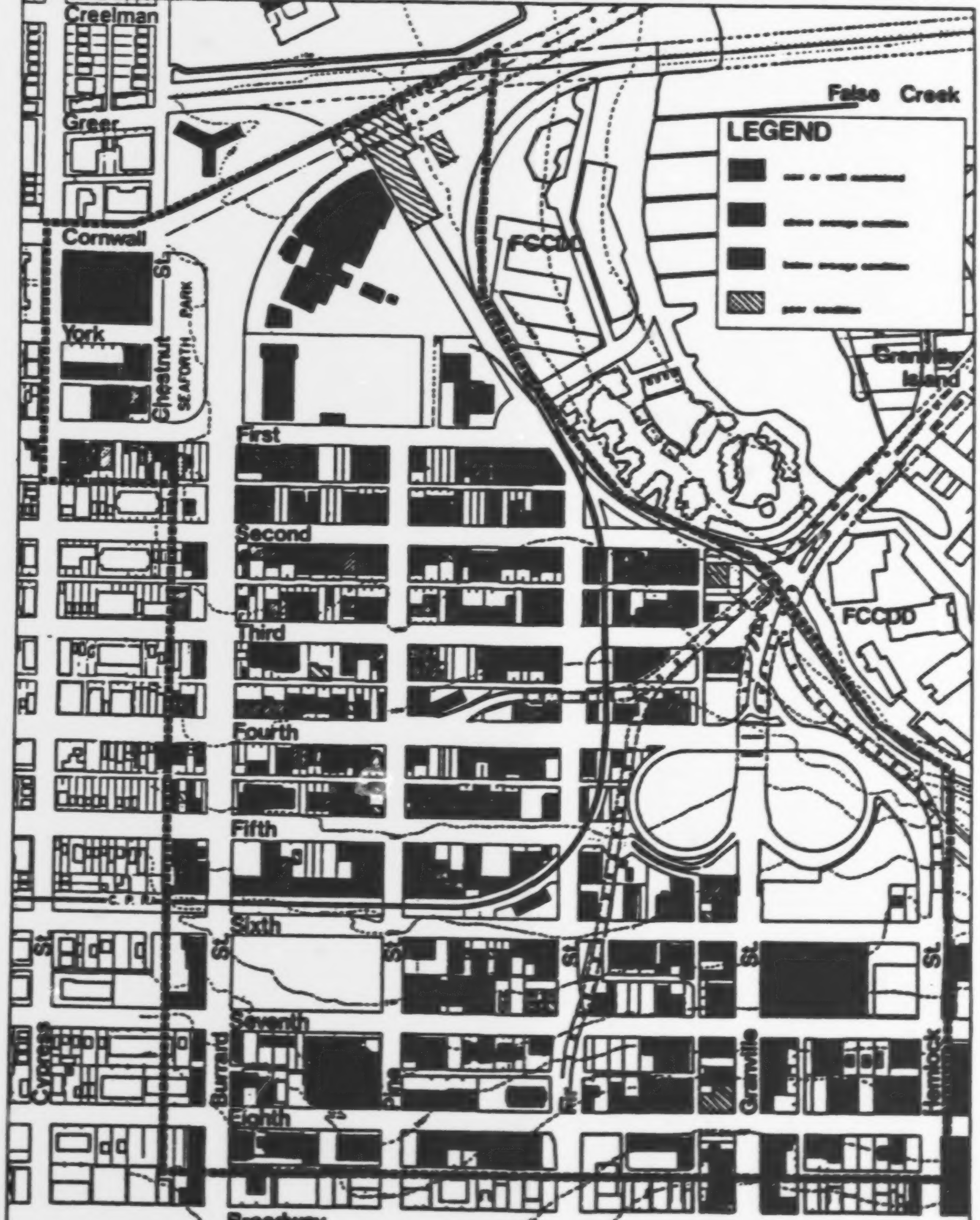
Observed Land Use 2a


Creelman
Greer
Cornwall
York
Chestnut St.
SEAFORTH PARK
False Creek
LEGEND
FCCDD
Granville Island
First
Second
Third
Fourth
Fifth
C. P. R.
Sixth
Seventh
Eighth
Broadway
Cypress
Burrard
Pine
Fir
Granville
Hemlock
St.
FCCDD

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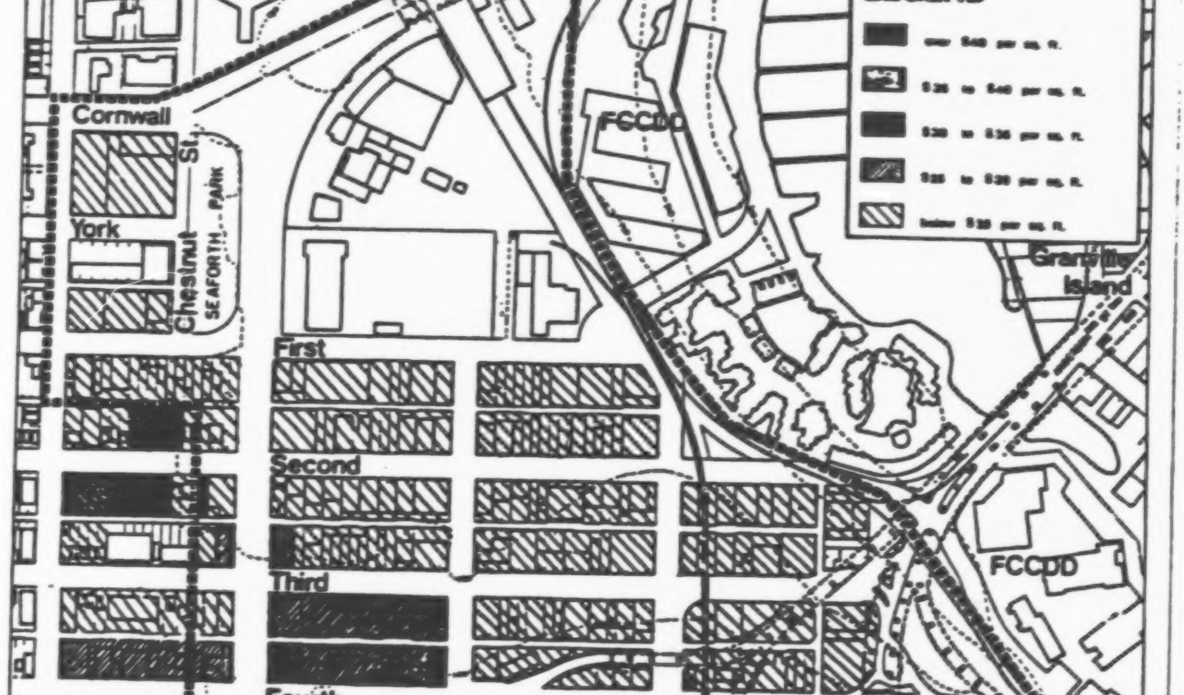
Building Quality

Windshield Survey

3a


Creelman
Greer
Cornwall
York
Chestnut St.
SEAFORTH PARK
First
Second
Third
Fourth
Fifth
C. P. R.
Sixth
Seventh
Eighth
Broadway
Cypress St.
Burrard St.
Pine St.
Fir St.
Granville St.
Hemlock St.
False Creek
FCCDD
FCCDD
Granville Island
LEGEND
over $40 per sq. ft.
$35 to $40 per sq. ft.
$30 to $35 per sq. ft.
$25 to $30 per sq. ft.
below $25 per sq. ft.
N

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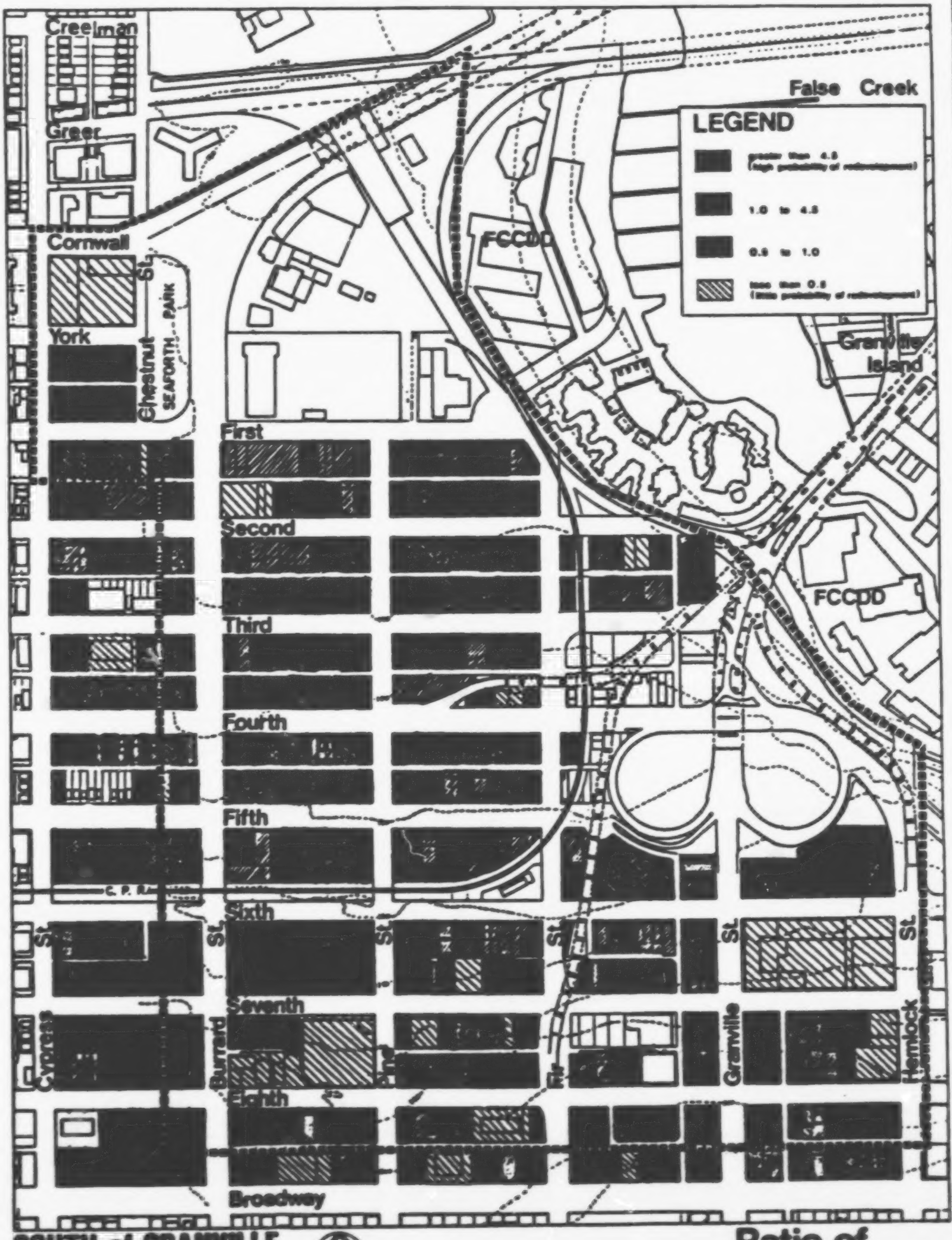
Land Value 4a


Creelman
Greer
Cornwall
York
Chestnut St.
SEAFORTH PARK
False Creek
LEGEND
greater than 4.5 (high probability of redevelopment)
1.0 to 4.5
0.5 to 1.0
less than 0.5 (little probability of redevelopment)
FCCDD
Granville Island
First
Second
Third
Fourth
Fifth
C. P. R.
Sixth
Seventh
Eighth
Broadway
Cypress St.
Burrard St.
Pine St.
Fir St.
Granville St.
Hemlock St.
N

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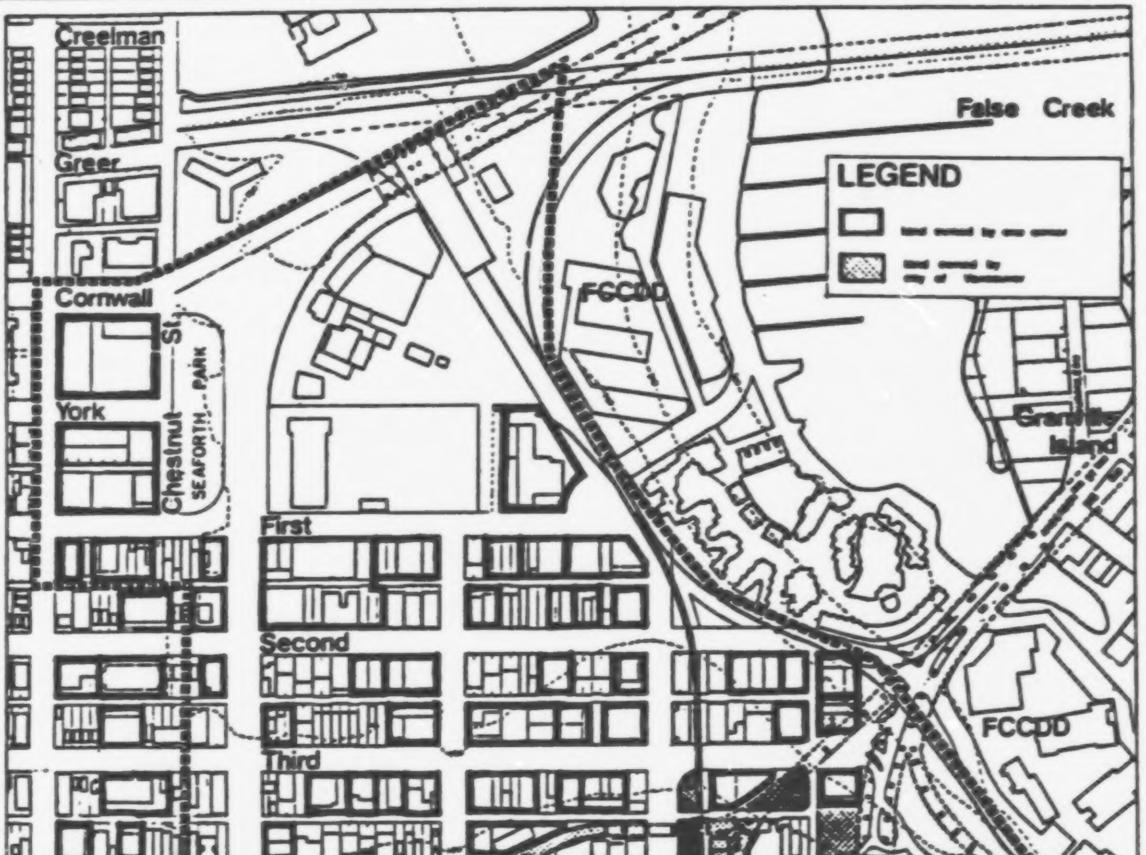
Ratio of Land Value to Improvement 5a


Creelman
Greer
Cornwall
York
Chestnut St.
SEAFORTH PARK
False Creek
LEGEND
FCCDD
Granville Island
FCCDD
First
Second
Third
Fourth
Fifth
C. P. R.
Sixth
Seventh
Eighth
Broadway
Cypress St.
Burrard St.
Pine St.
Fir St.
Granville St.
Hemlock St.
N

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Land Assemblies
of More Than Two Adjacent Properties

6a

APPENDIX B

TRAFFIC SYSTEM

I TRAFFIC SYSTEM

Map a shows the current classification of the streets in the study area. In the North-South direction, the major streets are related primarily to the approaches to the Granville and Burrard Bridges. In the East-West direction, the major streets are related to cross-town traffic demands.

Following the redevelopment of False Creek and Granville Island, Fir (3rd to 4th) and 3rd (East of Fir) have become major streets but with traffic volumes significantly less than the other major streets.

Signalized intersections are shown on Map a . Access opportunities into or out of the study area are enhanced by the two signals on Fir Street.

The local streets provide adequately for moving traffic in the area and serve as a major parking facility. Most of the streets are developed with curb and gutter and permanent pavements. However, 2nd and 3rd Avenues from Fir to Burrard are a substandard width for the current zoning, necessitating a full time parking prohibition on one side.

II TRANSIT ROUTES

Map b shows the existing transit routes in the area. By overall City-wide standards, the amount of transit in the area is higher than average reflecting the focus of routes to and from the Granville Bridge as well as the area-specific services related to False Creek and Granville Island. All parts of the study area are within reasonable distances from a transit route.

III RAIL CORRIDOR

The third transportation element in the area is the rail corridor. This facility has only one main customer in the study area - Molson's Brewery - and therefore is a through facility rather than a service facility. There is also some service to the storage sheds beneath the Burrard Bridge. The rail activity is limited (two short trains per day) causing relatively little disruption.

IV TRAFFIC VOLUMES

Map c illustrates the 24-hour, 2-way vehicular volumes on the major streets and some of the local streets. The local street volumes generally are commensurate with the type of land use in the area. On the streets north of 4th Avenue, daily volumes are approximately 25% higher than normal because of Granville Island and False Creek south generated traffic using 1st, 2nd, and 3rd as a route to and from Burrard Street.

During the morning rush hours (7 a.m. to 9 a.m.) there is no significant congestion within the study area. During the afternoon rush hours (4 p.m. to 6 p.m.) the most significant location in terms of delay and congestion is primarily related to the very heavy South bound to East vound left-turn demand on 4th Avenue at Fir Street (over 50% of the approach volume).

Because of the land use in the study area, particularly north of 6th Avenue, there is a significant amount of truck traffic. The two most noticeable elements in the area are the conrete ready-mix trucks going to and from the plant on Granville Island and the semi-trailers destined to and from Molson's. The amount of truck traffic does not create any problems in the area. The size of the individual trucks does require certain operational controls at intersections within the area to permit the large trucks to manoeuvre easily.

Pedestrian volumes are very low throughout the area except for the light retail area on Granville Street. However, adjacent to the study area there are significant pedestrian movements. Specifically the FCCDD and Granville Island are pedestrian-oriented with potential flows to and from the Vanier Park area and the Granville Bridgehead. As well 4th Avenue west of Burrard Street has a substantial retail-oriented pedestrian flow which could spill north into the study area along Fir Street or Pine Street.

Bicycle routes are not significant within the study area except for the False Creek-Kitsilano waterfront park connection.

V PARKING

Weekdays:

The local street system in the area provides a major part of the employee parking in the study area. Parking duration surveys have shown that all-day parking represents over 80% of the cars parked on the local streets - even in those blocks signed for one hour or two hour parking. By 9 a.m. almost 100% of the on-street parking spaces are full within the whole study area. Visitor or short term parking is extremely difficult to find on-street, and is only available off-street in a few locations.

During surveys in early 1982 parking conditions were as follows: In the area north of 4th Avenue, very little, if any, of this on-street parking was related to Granville Island generated activity. A Monday morning field check showed that at 9 a.m. the streets in the area north of 4th Avenue were parked almost 100% full, and Granville Island was only parked about two-thirds full (market closed). Other weekday morning field checks showed the streets fully parked and Granville Island was about 80% full (market open). In early 1983, however Granville Island activity has increased such that there is spillover into the study area on weekdays during the day.

Weekends:

On weekends there is less parking demand in the study area because many of the businesses are closed. There is some parking spillover from Granville Island (particularly on sunny Sundays) into the area immediately to the East of Granville Island. The peak on-street parking related to Granville Island is estimated to be about 125-150 spaces in early afternoon.

Alternative Solutions:

There are a number of alternative ways of alleviating parking conditions that may be worth further study. All of the alternatives have certain disadvantages.

Alternative 1: Reconstruct (widen) those streets currently curbed but with a full-time parking prohibition on one side. Relatively expensive parking spaces, limited number of block faces (4) in area north of 4th Avenue only.

Alternative 2: Enforce existing short-term time limits. Cost of enforcement, lack of alternative parking for some all-day parkers.

Alternative 3: Reduce extent of short-term time limits to include approximately 2 spaces only at the ends of each block, enforce. Cost of enforcement, lack of alternative parking for a few all-day parkers.

Alternative 4: Investigate use of part of the Seaforth Armouries site for all-day parking. Negotiations with the Federal Government, may not be available every weekday, only serves a small part of the study area.

Alternative 5: Introduce parking meters on a limited basis (for a few spaces per block, or on the flankage block faces) in the whole study area. Capital cost, maintenance cost, cost of enforcement, displacement of some all-day parkers.

Alternative 6: Increase the parking requirements in the zoning bylaw. Long-term solution, increases cost of development, more difficult for small sites.

Alternative 7: Establish collective parking sites (similar to Kerrisdale, Fraser Street, East Hastings, and/or implement a "pay-in-lieu-of-providing-parking" scheme). Medium- to long-term solution, requires acceptance by property owners (majority), if a surface lot is used some loss of amenity and tax base, location of suitable site to serve each sub-area.

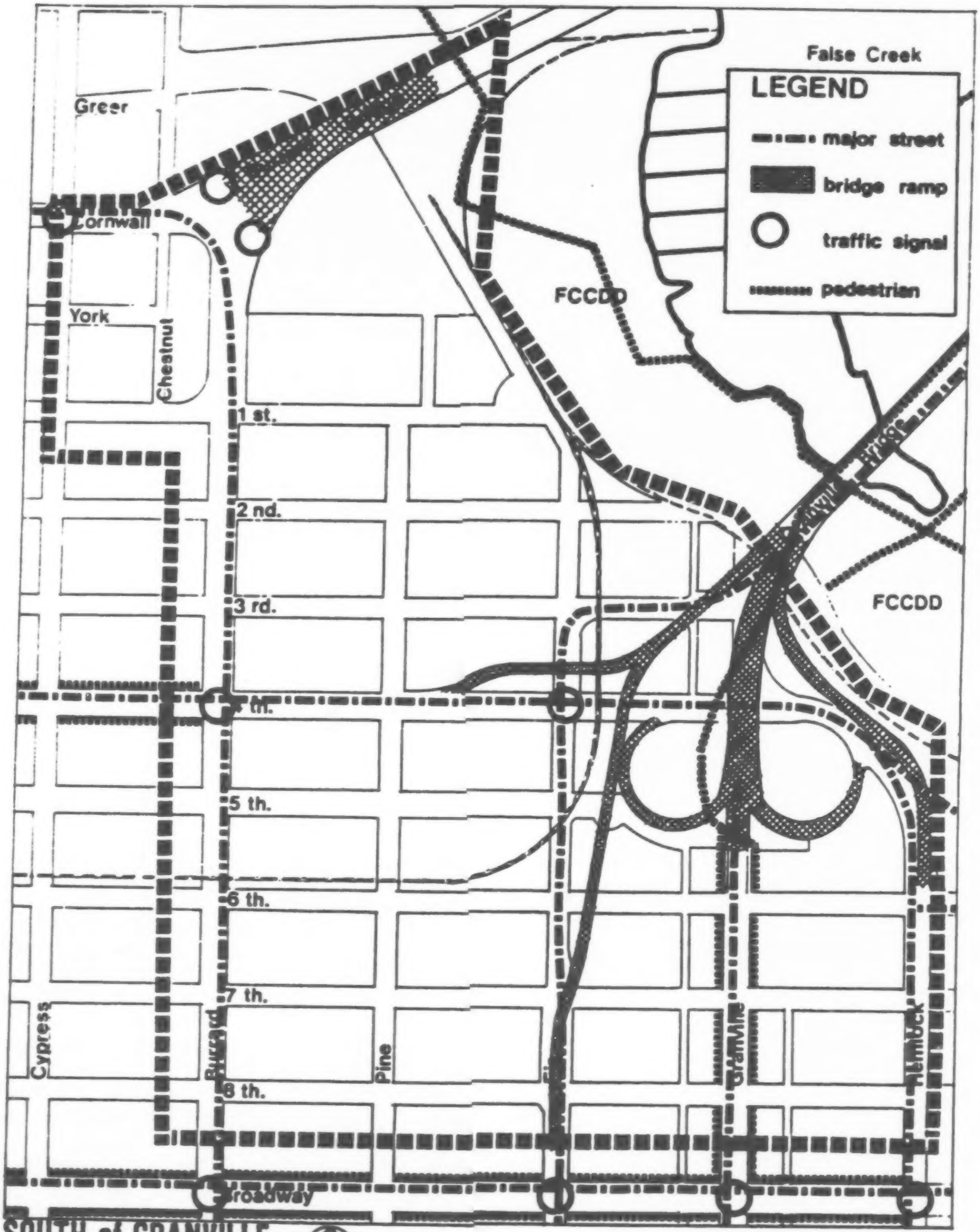
Alternative 8: Provide a bonus to development providing more than the required amount of parking either above or below grade. Medium- to long-term solution, no guarantee any additional parking would be provided, no guarantee of sufficient number of developments doing it throughout the total study area, aesthetics.

Alternative 9: Construction of parking facilities by the City. Capital cost, operating cost, precedent, loss of development opportunity (tax base).

No single alternative is the perfect solution to this particular problem. A combination of alternatives should be investigated in more detail by the City Engineering Department.

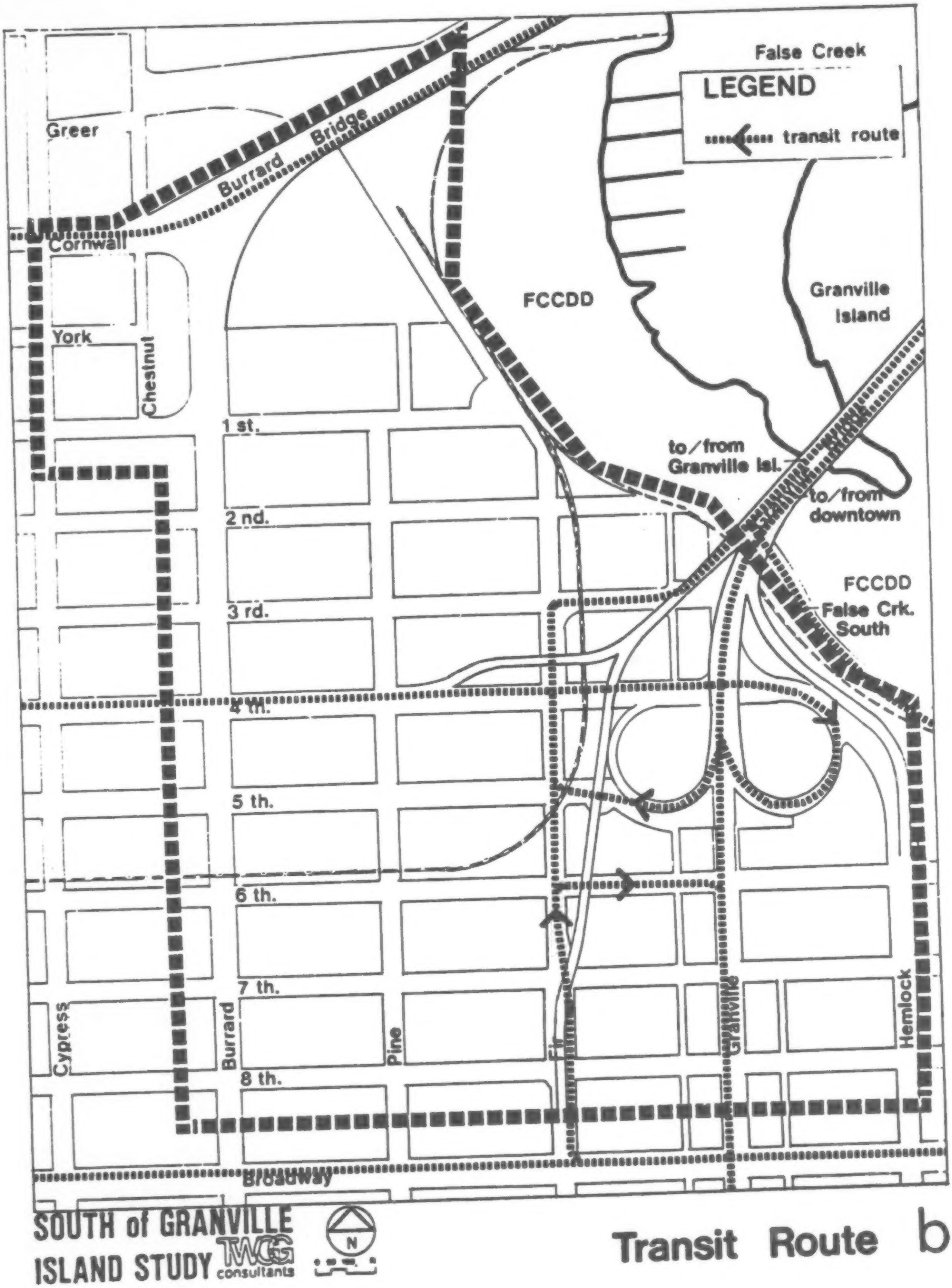
VI RAPID TRANSIT

Although the timing of the future ALRT operation is unknown, it is assumed that some form of rapid transit will cross the Granville Bridge and swing onto the 6th Avenue alignment of the B.C. Hydro Rail. This is more or less in line with the GVRD study 2. The details of the crossing of the bridge, the transition to 6th Avenue and the station location are assumed to be somewhat flexible depending on detailed study.


False Creek
LEGEND
major street
bridge ramp
traffic signal
pedestrian
Greer
Cornwall
York
Chestnut
1 st.
2 nd.
3 rd.
4 th.
5 th.
6 th.
7 th.
8 th.
FCCDD
FCCDD
Granville Bridge
Cypress
Burrard
Pine
Fir
Granville
Hemlock
Broadway

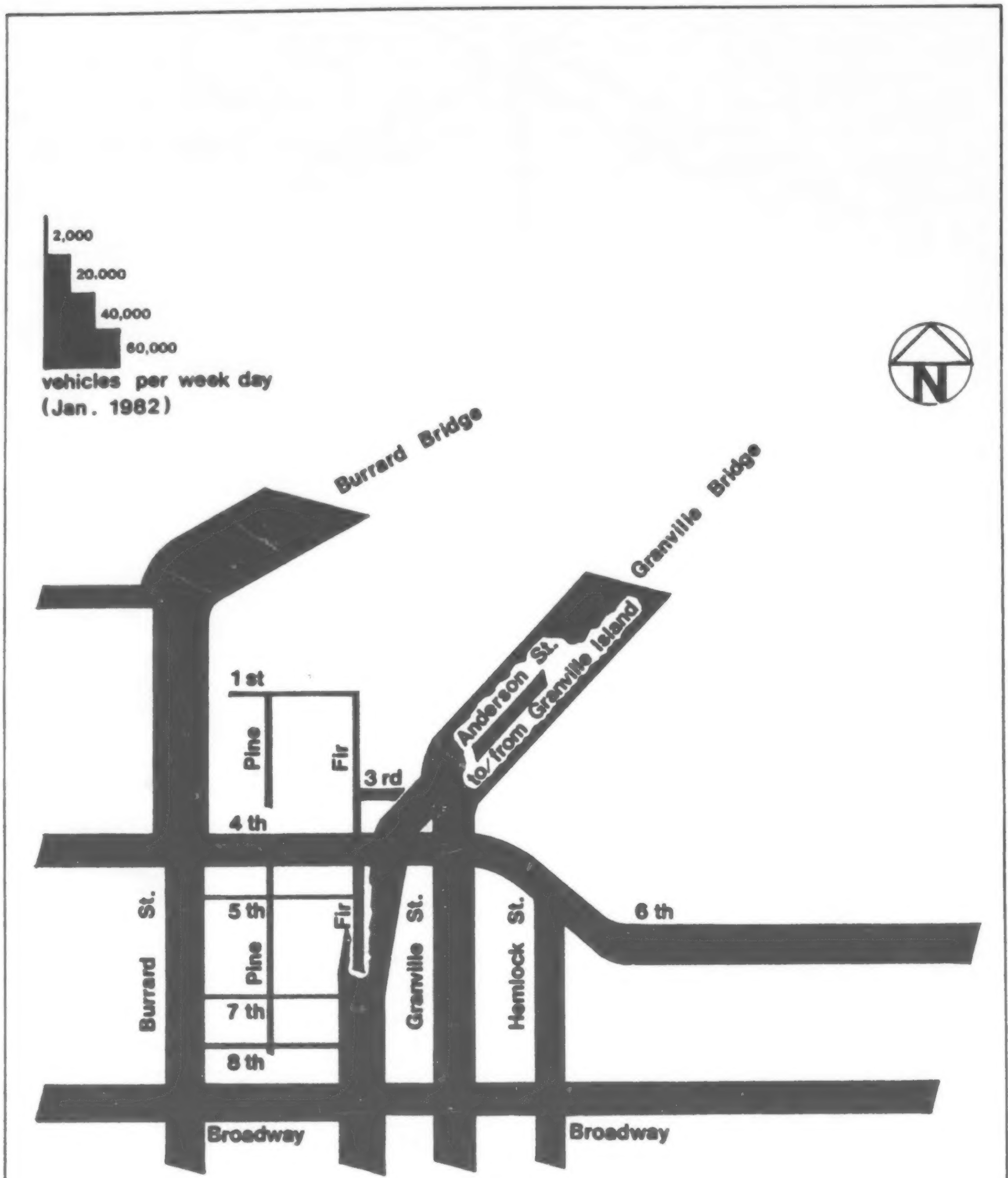
SOUTH of GRANVILLE
ISLAND STUDY TWCG consultants

Traffic System a


False Creek
LEGEND
transit route
Greer
Burrard Bridge
Cornwall
York
Chestnut
FCCDD
Granville Island
to/from Granville Isl.
to/from downtown
FCCDD
False Crk. South
1 st.
2 nd.
3 rd.
4 th.
5 th.
6 th.
7 th.
8 th.
Broadway
Cypress
Burrard
Pine
Fir
Granville
Hemlock
N

SOUTH of GRANVILLE ISLAND STUDY TWG consultants

Transit Route b


2,000
20,000
40,000
60,000
vehicles per week day
(Jan. 1982)
N
Burrard Bridge
Granville Bridge
Anderson St.
to/from Granville Island
1 st
Pine
Fir
3 rd
4 th
5 th
Fir
Pine
7 th
8 th
6 th
Burrard St.
Granville St.
Hemlock St.
Broadway
Broadway

SOUTH of GRANVILLE
ISLAND STUDY TWCG consultants

24 Hour
2-Way Traffic Volume C

APPENDIX C

COMPARATIVE POPULATION CHARACTERISTICS

TABLE a

1976 Population Characteristics, Comparing Area Adjacent to S.O.G.1. with City of Vancouver and G.V.R.D.

Area and Statistical Mode	Age of Population/Years									
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80 +	Total
Adjacent Area:										
Persons	530	755	5545	2315	1350	1985	2160	1550	1065	17255
%age of Total	3.1	4.4	32.1	13.4	7.8	11.5	12.5	9.0	6.2	100
C. of Vancouver:										
Persons	41440	59765	84425	50140	46035	48905	43275	26250	14055	414290
%age of Total	10.0	14.4	20.4	12.1	11.1	11.8	10.4	6.3	3.4	100
G.V.R.D.:										
Persons	140190	247785	200640	145175	125380	118125	89330	50515	26405	1143545
%age of Total	12.3	21.7	17.6	12.7	11.0	10.3	7.8	4.4	2.3	100

Source: G.V.R.D. Computerized records of 1976 Census Data.

TABLE b

1976 Household Characteristics, Comparing Area Adjacent to S.O.G.1. with City of Vancouver and G.V.R.D.

Area and Statistical Mode	Household Characteristics			
	Non Family	Childless Family	Family w. Children	Total
Adjacent:				
Households	7,170	2,320	965	10,455
%age of Total	68.6	22.2	9.2	100
C. of Vancouver:				
Households	67,010	40,210	57,210	164,430
%age of Total	40.8	24.4	34.8	100
G.V.R.D.:				
Households	113,600	98,880	174,695	387,175
%age of Total	29.4	25.5	45.1	100

APPENDIX D

PUBLIC PLANNING GOALS

I. INTRODUCTION

Planning proposals for a finite area such as the South of Granville Island Study Area must be prepared within the context of the larger-scale plans of the City and Region within which the study area is situated. Accordingly, the consultant-team has documented the planning goals of the City and Region to provide a framework for evaluating alternatives and for selecting preferred options.

Because the total list of goals is quite extensive, and because not all civic and regional goals are pertinent to the study area, they are presented in this appendix rather than in the main body of the report. A three-level hierarchy of goals is presented as follows:

(a) Regional District Goals: obtained from the list of "Public Livability Objectives" prepared by the Planning Department of the Greater Vancouver Regional District in November 1981, as part of the process of updating the 1975 "Livable Region Plan."

(b) City of Vancouver Goals: obtained from the document "Goals for Vancouver" prepared through a citizen-involvement process conducted under the auspices of the City Planning Commission, and published in 1980.

(c) Core-Area Goals: obtained from the July 1981 issue of "Quarterly Review" which presented a list of proposed core-area goals prepared by the Vancouver City Planning Department as part of its "Coreplan" program.

II. REGIONAL DISTRICT GOALS

1. Protect the region's farmland, animal habitat, scenic assets and natural environment.

    1.1 Protect land within the agricultural designation of the Official Regional Plan from the encroachment of non-agricultural uses including transportation facilities.

    1.2 Protect the region's valuable aquatic and wildlife habitat.

    1.3 Protect the region's scenic assets from urban development and preserve the views of these features during the development of the region.

   1.4 Protect the air and water quality of the region and enhance the water quality of the Fraser River and its estuary.

   1.5 Minimize or reduce contamination of the land in all parts of the region.

   1.6 Minimize or reduce the number of residential areas affected by unwanted noise.

2. Increase the variety and improve the quality of recreational activities and sites available to the residents of the region.

   2.1 Improve the area, quality and distribution of parks in the region.

   2.2 Expand the choice of non-park recreational activities and areas throughout the region.

   2.3 Increase public access to the waterfront in all parts of the region.

   2.4 Improve the accessibility of recreation areas within and adjacent to the region.

3. Minimize the time, cost and inconvenience of travel to work and shopping.

   3.1 Enhance the efficiency of existing transportation facilities.

   3.2 Provide convenient efficient new public transit.

   3.3 Enhance the convenience of non-auto transportation.

4. Reduce the disruption associated with past growth and reduce the uncertainty of future growth by allowing residents to participate in decisions that affect their lives.

   4.1 Integrate landmarks, heritage areas, commercial centres and other features of local importance into the future development of the region.

   4.2 Respect neighbourhood concerns in the course of regional development.

5. Increase the efficiency and effectiveness of all levels of government serving the residents of the region.

6. Reduce differences in the availablity of physical and social services within the region's existing and developing urban areas.

7. Enhance the economic development which does not detract from the region's quality of life.

   7.1 Increase the strength of the region's agricultural sector and protect agricultural activities from the negative impact of adjacent urban uses.

   7.2 Increase the capacity of the region's ports in a manner that causes minimal environmental impact.

   7.3 Increase the diversification of the region's economy into activities that have low environmental impact.

8. Enhance the development of adequate housing for all regional residents, including the disabled and disadvantaged.

   8.1 Enhance the supply of housing for people of all income levels in all parts of the region.

   8.2 Increase the availability of a variety of housing types and tenures.

   8.3 Provide housing in new residential communities for people and families of varying size, age and housing needs.

9. Increase the efficiency of energy use in the region.

   9.1 Reduce the average amount of non-renewable energy used in the homes of regional residents.

   9.2 Reduce the rate of growth of energy required to transport goods and people in the region.

III. CITY OF VANCOUVER GOALS

1. Element 1: The City as a Stage

   1.1 Maintain access to and enjoyment of natural settings and and environment which is perceived as one of the principal components of the quality of life in Vancouver.

   1.2 Views of the mountains and water should be protected.

1.3 That trees, flowers and natural greenery be part of the landscaping in all parts of the city.

1.4 Ensure adequate park acreage on good sites to provide for parks of a neighbourhood, local, district, waterfront and regional character to satisfy outdoor recreational and amenity needs.

1.5 Provide for innovative park designs or park amenities in all public open space, such as linear parks, mini parks, street landscaping.

1.6 Maintain existing and new parks to a standard in keeping with the desired image for Vancouver.

1.7 Enable Vancouver residents to enjoy more fully their natural heritage of sea and river, by increasing waterfront access in areas where it is restricted.

1.8 Development of the greater part of the University Endowment Lands as a regional park.

1.9 Define clearly those areas where high-rise or medium-rise buildings are acceptable; restrict them in other parts of the city; review from time to time.

1.10 Improve and maintain water quality of the Fraser River, English Bay and harbour, so that it is fit for fish, wildlife and recreational use.

1.11 Reduce air pollution within the region.

1.12 Reduce land contamination and its subsequent effect on water quality.

1.13 Support efforts to generally reduce, buffer or mask the unwanted noises of the city.

2. Element II: The People of the City

2.1 Encourage growth where it will lead to the expansion of housing and employment opportunities, but ensure management of such growth so that the quality of life and character of the city are maintained.

2.2 Support Vancouver's social development as a city that is home to a wide variety of people with many different personal and group backgrounds and many different lifestyles.

2.3 Maintain and expand opportunities for child-rearing families to live within the City of Vancouver.

2.4 That the elderly be supported and assisted in obtaining a high quality of life in Vancouver.

2.5 To recognize the special needs of the disadvantaged and to assist in all ways possible to improve their situation and enable them to participate as fully as possible in the mainstream of life.

2.6 Recognize the mixed ethnic character of Vancouver and its ethnic neighbourhoods by supporting the development of unique character areas, events, facilities, activities that promote our peoples' mixed heritage.

2.7 Promote amicable relations between ethnic, racial or cultural groups within the city and so assist in reducing existing and potential tensions.

3. Element III: The Parts of the City

3.1 Improve downtown Vancouver so that it meets the objective of being a central place of regional activity, enjoyment and a showplace of pride.

3.2 Develop downtown Vancouver as an attractive, economically viable, transit-oriented core of the region.

3.3 Support the development of individual character and identity for neighbourhoods of Vancouver.

3.4 Preserve and enhance the character of unique commercial areas in the City of Vancouver.

3.5 Provide a wide variety of housing cost and type to meet the shelter requirements of existing and future Vancouver residents.

3.6 Distribute acceptable housing types and forms within all appropriate areas of Vancouver, rather than having them concentrated in a few districts.

3.7 Upgrade areas of the city in need of both physical improvements and services to the residents.

4. Element IV: The Economy of the City

4.1 Promote a diversity of employment opportunities within the city.

4.2 Support job development, not only in the city itself but on a regional basis.

4.3 Strengthen and support the trade and port activities that occur within Vancouver.

4.4 Encourage the tourist/visitor industry in Vancouver with clear guidelines minimizing impact on quality of life and other beneficial factors.

5. Element V: Leisure in the City

5.1 Facilitate access to and enjoyment of the natural areas of the Vancouver area, Vancouver Island and the mainland of B.C. for residents of the City of Vancouver.

5.2 Adopt a comprehensive approach to public recreation programming and facilities which unifies their function in developing and improving the physical and mental fitness of all ages and cultural groups, with maximum voluntary input and responsible citizen involvement.

5.3 Coordinate or integrate the management of public recreation facilities and programs.

5.4 Maintain the high standard of service that has evolved in the Vancouver Public Library system and constantly seek where possible to renew and expand.

5.5 Provide a nourishing atmosphere in Vancouver in which all the arts will flourish.

5.6 Encourage a myriad of cultural expressions in order to enrich the lives of citizens.

5.7 A new stadium to house major sports activities should be constructed within the City of Vancouver.

6. Element VI: Movement in the City

6.1 Emphasize transit in the development of future transportation in Vancouver.

6.2 Improve automobile circulation in the city by the management of existing facilities, rather than the development of new roads, widening of existing roads, etc.

6.3 Improve the pedestrian environment in all parts of the city and plan for its enhancement with the same care and concern as for other forms of transportation.

6.4 Facilitate the use of bicycles in Vancouver as a recreation activity and as a mode of commuting to and from employment.

6.5 The removal of as much through truck traffic as possible from residential areas.

7. Element VII: Services to People of the City

7.1 Ensure that health services are equally available and oriented to all segments of the population and all parts of the city.

7.2 Support the concept of self-help in health care.

7.3 Provide the opportunity for high quality education throughout the public school system.

7.4 A system of justice which is universally applied, accessible to all citizens, and which accurately reflects the values and conditions of our society.

7.5 Provide a high standard of personal safety and property security to the residents of Vancouver.

8. Element VIII: Services to Property of the City

8.1 Maintain a high standard of cleanliness in all parts of the city on private and public premises, and in private and public open spaces.

8.2 Maintain the high level of physical utilities in all parts of the city.

8.3 Maintain a high level of protection from fire and disaster for the residents of Vancouver and for property in the city.

8.4 Take account of the impact of regulation upon heritage preservation, social concerns, and the ability of the city to cope with potential disasters.

8.5 Develop policies, by-laws and information programs designed to minimize undesirable effects of dogs and other animals in the city, particularly on streets and in other public spaces.

9. Element IX: Special Concerns of the City

9.1 The City's past should be embodied in the present and due attention given to appropriate conservation and recycling of structures and areas that are of special interest for present and future citizens.

9.2 Natural amenities that have long been enjoyed by the residents of Vancouver should be protected to ensure the continued enjoyment of them by future citizens.

9.3 The City of Vancouver to act as an example of an energy conserver and, wherever possible, as a facilitator of private energy use reduction.

9.4 Preservation of the remaining agricultural lands within Vancouver and support for the preservation of land suitable for farming in other parts of the region.

9.5 Support a unique identity and image of Vancouver.

9.6 Emphasize the development of both public and private space that contributes to an attractive appearance for the city and harmonizes with its unique setting.

9.7 To manage growth and change so as to ensure a high quality of life for all citizens of Vancouver, and to recognize that there can be no one quality of life for everyone, by allowing freedom to choose.

10. Element X: Management of the City

10.1 Ensure that the structure of the government of the City of Vancouver, its internal systems and relationships with external systems, its management style and methodology, reinforce understanding confidence and trust between government and people.

10.2 To pursue the goals of the Vancouver people with an ongoing regard for efficiency and in the context of strong fiscal responsibility.

10.3 Continue endeavours to obtain an equitable apportionment of provincial and federal revenues to reflect Vancouver's role as the major centre of population of the province and core city providing unique and specialized services and facilities.

10.4 Promote confidence in our local civic government by continuously striving to make it more accountable, locally visible, responsive and representative of all elements of the community.

10.5 Promotion of the opportunity for resident involvement in the future of Vancouver and its neighbourhoods as a basic objective of a sound and responsive city government and a caring community.

10.6 Maintain and enhance those physical, social and economic aspects of Vancouver that have made it the traditional core or centre city of its region, so that the city may continue to fulfill this role without, however, impairing its livability.

10.7 To use regulation in a manner that supports the creation of a man-made city that is worthy of its natural setting.

IV. CORE-AREA GOALS

1. Employment

1.1 Provide more and varied (white and blue collar) employment opportunities.

1.2 Support job development not only in the city itself, but also on a regional basis.

1.3 Encourage growth where it will lead to the expansion of housing and employment opportunities, but ensure management of such growth so that the quality of life and character of the city are maintained.

2. Downtown Activities

2.1 Expand transit and transportation, port and trade, and cultural activities in the downtown, as top priorities.

2.2 Promote entertainment, hotel and tourist activities as a second priority.

3. Transportation

3.1 Reduce time spent travelling to work.

3.2 Maintain the current ease of travelling for pleasure and for shopping.

3.3 Make public transit to all parts of the city a priority in the development of future transportation in Vancouver.

3.4 Reduce traffic congestion through better use of existing roads and facilities.

3.5 Reduce the heavy truck traffic in the downtown.

3.6 Reduce the volume, noise and other detrimental effects of truck traffic through residential areas.

4. Housing

    4.1 Increase the choice of housing types, tenures, price and locations.

    4.2 Maintain and expand opportunities for child-rearing families to live within the city.

    4.3 Provide lower priced housing alternatives for the elderly.

    4.4 Locate multiple housing within nearly all areas of the city.

    4.5 Distribute a fair share of housing types (seniors, moderate income, etc.) in the most appropriate places throughout the city.

5. Natural and Built Environment

    5.1 Preserve the unique character which already exists in many Vancouver neighbourhoods.

    5.2 Preserve and enhance the character of unique commercial areas in the city.

    5.3 Improve the pedestrian environment throughout the city.

    5.4 Achieve high quality building design in the downtown.

    5.5 Protect selected views of the mountains and waterfront and in particular, views from downtown street ends and the Granville and Burrard Bridge approaches.

    5.6 Increase public access to the waterfront.

    5.7 Preserve the remaining agricultural lands within Vancouver and the region.

    5.8 Improve the water quality of the Fraser River, English Bay and the harbour.

    5.9 Reduce air pollution caused by industry and by autos.

6. Recreation

    6.1 Provide a diversity of recreational opportunities.

    6.2 Provide a variety of park sizes, locations, functions and characters.

7. Energy

   Reduce energy consumption.

8. City Government

   Ensure that business and property taxes do not increase drastically.

APPENDIX E

ECONOMIC DATA

I. LAND VALUES IN STUDY AREA

In the ensuing analysis, land values have been derived primarily from assessment records for the 1982 taxation year. Although assessed value may not always correspond to an owner's or investor's perception of value for a specific parcel, the use of assessment records has the advantage of relying upon a single source of data for all properties, thus ensuring a uniformity of appraisal technique, which facilitates valid comparisons between properties, and between areas and districts. A summary of land values derived from this process is provided in the following table:

1982 ASSESSED LAND VALUES

Zoning	Location	Value, $ per sq. ft.
M-1	Between 4th & 7th (typical mid-block sites)	$ 27.00
M-1	North of 4th (typical mid-block sites)	30.00
M-1	Burrard St. east frontage: lane S. of 4th to 5th	33.50
M-1	Burrard St. east frontage; 1st to lane N. of 4th	37.50
M-1	Fourth Avenue frontage	37.50
C-3A	Burrard St. west frontage; 7th to lane N. of Broadway	40.00
M-1	East side corners of 4th and Burrard	42.00
C-3A	Burrard St. west frontage; 1st to lane N. of 4th	50.00
C-3A	Burrard St. west frontage; lane S. of 4th to 6th	51.75
C-3A	Mid-block sites between 7th and lane N. of Broadway	66.00
C-3A	Burrard St. east frontage; 7th to lane N. of Broadway	70.00
C-3A	Granville St. frontage, mid-block, both sides, 6th-8th	70.00
C-3A & CD	Burrard St. frontage; both sides, 6th to 7th	72.00
C-3A	Granville St. frontage; mid-block, both sides 8th to Broadway	74.50
C-3A	Granville St. corners at 6th & 7th	81.50
C-3A	Granville St. corners at 8th	85.00
C-3A	Broadway frontage	90.00
C-3A	Corners, Broadway and Granville	150.00

The data demonstrates the strong downward pressure which the M-1 zoning is exerting upon land values within the area. For example, where 7th Avenue acts as the boundary between the M-1 and C-3A zones, the land on the north side of the street (zoned M-1) has an average value of approximately $28.00 per sq.ft., while for the land across the street (zoned C-3A), the average value is $68.00 per sq.ft. Specific locational factors further modify the values, with properties fronting arterials being substantially more valuable than those fronting local streets, and with corner sites being from 10 to 15% more valuable than similar mid-block sites.

Generally in past years, assessed values have tended to lag behind market values, due to the time involved in preparing the assessment rolls, with the result than in a rising market assessed values have been somewhat lower than actual market values. However, discussions with the B.C. Assessment Authority indicate that this year the evidence suggests that, due to the recent downturn in the market, assessed values and actual market values should be very close to one another.

To test the application of this theory to the study area, the records of recent sales were examined. The results are summarized in the following table. Basically, outside of the M-1 zone, sale prices tend to be actually below assessed values; but within the M-1 zone, they average approximately 50% above. The most plausible explanation for this unusual circumstance is that the market is aware that a planning study is underway and has already begun to anticipate a change in zoning to a higher value land use.

SUMMARY OF RECENT PROPERTY TRANSACTIONS

Location	Zoning	Date of Sale	1982 Assessment, Land & Improvements	Sale Price	Comparison of Sales & Assessment
2306 Burrard	C-3A	May '82	$2,974,000	$ 2,700,000	9% below
1777 W. 8th	C-3A	June '82	653,000	450,000	31% below
1820 W. 3rd*	RM-3B	Feb. '82	137,150	115,850	15% below
1630 W. 5th	M-1	May '82	1,420,000	2,300,000	62% above
1815 Pine	M-1	May '82	553,450	835,000	50% above
1720 W. 2nd	M-1	May '82	274,600	410,000	49% above
1706 W. 4th	M-1	Apr.'82	233,150	246,250	5% above
1564 W. 6th	M-1	Jan.'82	249,550	390,000	56% above
1690 W. 6th	M-1	Apr.'82	248,150	350,000	41% above
N.Side)L"B"	M-1	Feb.'82	140,200	465,000	232% above**
W. 7th)L"C"	M-1	Feb.'82	116,850	465,000	298% above**
1500 Blk)L20	M-1	Feb.'82	166,900	465,000	179% above**

Source: B.C. Assessment Authority records

*On borderline of study area

**These transactions are a single land assembly, and are sufficiently non-typical to be rejected in determing a representative "average" increase in value.

For purposes of comparing land values within the study area to those prevailing elsewhere in the city and region, the publication "Real Estate Trends in Greater Vancouver" was consulted, because limitations of time and budget precluded detailed analysis of assessment records for districts beyond the study area boundary. A brief summary of 1981 industrially zoned land values obtained from this source is as follows:

1981 Comparative Industrial Land Values - ($ per sq.ft.)

Location	Range	Median Value
Study area	$30.00 - $35.00	$32.50
Vancouver City East of Main	25.00 - 30.00	27.50
Vancouver City, S.E. Marine Drive	8.00 - 20.00	14.00
Port Moody	-	10.00
Burnaby	3.60 - 10.00	6.80
Coquitlam	4.60 - 6.30	5.45
Surrey	1.85 - 3.70	2.75

Clearly, the industrially zoned land within the study area is the most expensive in the region, lending further credence to the arguments presented at the public meeting to the effect that land values in the area are now too high to make industrial development feasible.

II. NON-INDUSTRIAL BONUSSING

There has been some consideration by City staff of the possibility of encouraging new industrial development by 'bonussing', which would involve permitting the incorporation of other uses such as offices, residences, or retail facilities into new industrial projects.[1] It was therefore considered important to investigate the possible application of this approach to the study area.

To do so, simple 'pro formas' were prepared to estimate roughly what degree of bonussing would be required to produce a more favourable return than can be realized under existing M-1 zoning. The figures used in these pro formas are similar to those used by the City Property Department in a study undertaken earlier this year, while considering the purchase of the Chapman Industries property within the study area, and are as follows:

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[1] See for example "An Economic Strategy for Vancouver in the 1980s", Vancouver Economic Advisory Commission, May 1982, p. 9.

Land cost	$45.00 per sq.ft.
Construction cost - industrial space	37.50 "
" - office space	55.00 "
" - underground parking	9,000.00 per stall
Net rental income - industrial space	6.00 per sq.ft./per year
" - office space	11.00 " "
" - parking space	480.00 per stall/per year
Parking required (industrial)	1 space per 1,000 sq.ft.
" (office)	3 spaces for 1st 3,000 sq.ft. + 1 per 500 thereafter
Surface parking cost	4.00 per sq.ft.
Building efficiency (ratio of net area to gross area)	
..Single storey industrial with nothing above	100%
..Single storey industrial with offices above	90%
..Multi-storey industrial	85%
..Office space	85%

Site size - 100 x 120 ft. (i.e. 12,000 sq.ft.)

PRO FORMA #1 - 100% Industrial Building, F.S.R. 5.0

Land cost - 12,000 x $45.00	= $ 540,000	
Development cost - building, 12,000 X 4 X $37.50	= 2,250,000	
- parking - 60 x $9,000	540,000	
- professional fees @ 6% of construction cost	167,400	
Total project cost	=	$3,497,400
Revenue: Industrial space 85% x 60,000 x $6.00	= 306,000	
Parking - 60 x $480	28,800	
Total revenue		$ 334,800

Rate of Return $\frac{334,800}{3,497,400} \times 100 = \underline{\underline{9.57\%}}$

PRO FORMA #2 - Mixed Use Building, F.S.R. = 2, Industrial = 50%, Office - 50%

Land cost - 12,000 x $45.00	= $ 540,000	
Development cost - Industrial space 12,000 x $37.50	= 450,000	
- Office space 12,000 x $55.00	= 660,000	
- Parking 33 x $9,000	= 297,000	
- Professional fees @ 6% of above 3 items	= 84,420	
Total project cost		$ 2,031,420
Revenue: Industrial space 90% X 12,000 X $6.00	= 64,800	
Office space 85% X 12,000 X $11.00	= 112,200	
Parking 33 x $480	= 15,840	
Total revenue		192,840

Rate of Return $\frac{192,840}{2,031,420} \times 100 = \underline{\underline{9.49\%}}$

PRO FORMA #3 - Mixed Use Building, F.S.R. = 3, Industrial = 1/3, Office = 2/3

Land cost - 12,000 X $45.00	= $ 540,000	
Development cost - Industrial space 12,000 X $37.50	= 450,000	
- Office space 24,000 X $55.00	= 1,320,000	
- Parking 57 X $9,000	= 513,000	
- Professional fees @ 6% of above 3 items	= 136,980	
Total project cost		$ 2,959,980
Revenue: Industrial space 90% X 12,000 X $6.00	= 64,800	
Office space 85% X 24,000 X $11.00	= 224,400	
Parking 57 X $480	= 27,360	
Total revenue		316,560

Rate of return $\frac{316,560}{2,959,980} \times 100 = \underline{\underline{10.69\%}}$

PRO FORMA #4 Mixed Use Building, F.S.R. = 3, Industrial = 2/3, Office = 1/3

Land cost - 12,000 X $45.00	=	$ 540,000	
Development cost - Industrial space 24,000 X $37.50	=	900,000	
- Office space 12,000 X $55.00	=	660,000	
- Parking 45 X $9,000	=	405,000	
- Professional fees @ 6% of above 3 items	=	117,900	
Total project cost			$ 2,622,900
Revenue: Industrial space 85% X 24,000 X $6.00	=	122,400	
Office space 83% X 12,000 X $11.00	=	112,200	
Parking 45 X $480	=	21,600	
Total revenue			256,200

Rate of return $\frac{256,200}{2,622,900} \times 100 = \underline{\underline{9.77\%}}$

PRO FORMA #5 Mixed Use Building, F.S.R. = 4, Industrial = 50%, Office = 50%

Land cost - 12,000 X $45.00	=	$ 540,000	
Development cost - Industrial space 24,000 x $37.50	=	900,000	
- Office space 24,000 X $55.00	=	1,320,000	
- Parking 69 X $9,000	=	621,000	
- Professional fees at 6% of above 3 items	=	170,460	
Total project cost			$ 3,551,460
Revenue: Industrial space 85% X 24,000 X $6.00	=	122,400	
Office space 85% X 24,000 X $11.00	=	224,400	
Parking 69 X $480	=	33,120	
Total revenue			379,920

Rate of return $\frac{379,920}{3,551,460} \times 100 = \underline{\underline{10.69\%}}$

PRO FORMA #6 Mixed Use Building, F.S.R. = 4, Industrial = 1/4, Office - 3/4

Land cost - 12,000 X $45.00 = $ 540,000

Development cost - Industrial space 12,000 X $37.50 = 450,000

- Office space 36,000 X $55.00 = 1,980,000

- Parking 81 X $9,000 = 729,000

- Professional fees @ 6% of above 3 items = 189,540

Total project cost . . . . $ 3,888,540

Revenue: Industrial space 90% X 12,000 X $6.00 = 64,800

Office space 85% X 36,000 X $11.00 = 336,600

Parking 81 X $480 = 38,880

Total revenue 440,280

Rate of return $\frac{440,280}{3,885,540} \times 100 = \underline{11.32\%}$

PRO FORMA #7 "Least Cost Project" - single storey industrial building with surface parking only - cheaper construction, so assume $29.66 per sq.ft. (Source: 1982 ed. "Real Estate Trends") 9,000 sq.ft. building (F.S.R. = .75) - 3,000 sq.ft. loading area and surface parking lot.

Land cost - 12,000 X $45.00 = $ 540,000

Development cost - Industrial space 9,000 X $29.66 = 266,940

- Parking 3,000 X $4.00 = 12,000

- Professional fees @ 6% of above 2 items = 16,737

Total development cost . . . . $ 835,677

Revenue: Industrial space 100% X 9,000 X $6.00 = 54,000

Parking 9 X $480 = 4,320

Total revenue 58,320

Rate of return $\frac{58,320}{835,677} \times 100 = 6.98\%$

PRO FORMA #8 "Low Cost Project" - ground floor industrial with one storey of frame office space over, and surface parking only.

- cheaper construction, so assume industrial space cost of $29.66 per sq.ft.; and office space cost of $45.35 per sq.ft. (source: 1982 ed. of "Real Estate Trends")
- 6,600 sq.ft. of industrial (F.S.R. 0.55)
- 7,200 sq.ft. of office (requires modest cantilever over parking lot) F.S.R. = 0.6
- 5,400 sq.ft. of loading and surface parking for 18 cars

Land Cost - 12,000 X $45.00		=	$ 540,000	
Development cost	- Industrial space 6,600 X $29.66	=	195,756	
	- Office space 7,200 X $45.35	=	326,520	
	- Parking 5,400 X $4.00	=	21,600	
	- Professional fees @ 6% of above 3 items	=	32,633	
Total development cost				$ 1,116,509
Revenue:	Industrial space 90% X 6,600 X $6.00	=	35,640	
	Office space 85% X 7,200 X $11.00	=	67,320	
	Parking 18 X $480	=	8,640	
Total revenue				$ 111,600

Rate of return $\frac{111,600}{1,116,509} \times 100 = 10.0\%$

SUMMARY Rank order of profitability

Rank Order	Rate of Return	Pro Form No.	Total F.S.R.	Office F.S.R.
1	6.98%	7	0.75	0
2	9.49%	2	2.0	1.0
3	9.57%	1	5.0	0
4	9.77%	4	3.0	1.0
5	10.0%	8	1.15	.6
6	10.69%	3	3.0	2.0
7	10.69%	5	4.0	2.0
8	11.32%	6	4.0	3.0

CONCLUSIONS

In drawing conclusions from the foregoing exercise, it must be stressed that the sole purpose of the process is to examine the relative economic attractiveness of one "mix" of uses and/or densities in comparison with other "mixes"; rather than to address the question of precisely what rate of return should be considered as being sufficient to make a project feasible. The answer to this latter question varies with the individual investor; and more importantly, varies with the relative attractiveness of alternative forms of investment at any one moment in time. In times when such relatively safe investments as Canada Savings Bonds offer yields as high as 19% then, as a general rule, riskier investments such as real estate development should offer higher rates of return than this in order to be considered attractive. In periods such as we have been experiencing recently, with interest rates fluctuating widely over short time intervals, the concept of rate-of-return is useful only in comparing the relative attractiveness of similar investments, rather than in establishing absolute figures on which to base long term policies.

The most significant benchmarks in the foregoing analysis are:

.. pro forma #1 (yielding 9.57%) which represents the maximum development permissible under existing M-1 zoning; and

.. pro forma #8 (yielding 10.0%) which roughly represents the most commonly found type of development within the M-1 area today.

Because these prevailing and/or permissible forms of development have attracted little if any investment for many years (including the active construction years preceding the current recession) any new zoning approach intended to encourage new development would have to offer a higher rate of return than can be achieved under pro forma #1 and #8. Pro forms 3, 5 and 6 fulfill this requirement, and all have office components of F.S.R. 2.0 or more. This indicates that the bonussing technique, to be effective, would have to permit the development of a substantial amount of office space to cause the creation of new industrial space; and in view of the goal of seeking to minimize the amount of new core area office zoning, this seems too high a price to pay for whatever benefits may be derived from the anticipated new industrial space.

III. RESIDENTIAL F.S.R.

The proposed new residential area lies between, and effectively connects, two established and growing residential areas to the east and west of the study area. To the west lies the RM-3B zone of Kitsilano, and to the east lies Area 10B of the False Creek Comprehensive Development District.

The RM-3B zone allows an absolute maximum F.S.R. of 1.9 when full advantage is taken of all possible bonus provisions. The density provisions of the F.C.C.D.D., Area 10B, legislation are not specifically expressed in terms of F.S.R., but correspondence with the project manager for the False Creek Development Group indicates that the development density being achieved is equivalent to approximately an F.S.R. of 2.0.

For reasons of compatibility, an F.S.R. similar to that of the adjacent areas (i.e., in the range of from 1.5 to 2.0) is proposed for the residential portion of the study area. However, one should first determine whether or not, at this F.S.R., one could reasonably expect new development to take place, given a return to more favorable economic circumstances. To make this determination, the typical land-cost-per-suite for new apartment construction in similar areas was investigated, using as a source the publication "Real Estate Trends in Greater Vancouver." Pertinent data from this investigation is summarized in the following Table.

Site Value Per Dwelling Unit

Year	West End	South Granville	Kitsilano
1977	$ 10,000 to 12,000	$ 12,000 to 16,000	$ 12,000 to 15,000
1978	12,000 to 13,000	12,000 to 16,000	12,000 to 15,000
1979	12,000 to 13,000	12,000 to 16,000	12,000 to 15,000
1980	12,000 to 19,000	12,000 to 17,000	12,000 to 17,000
1981	40,000 to 60,000	45,000 to 55,000	45,000 to 55,000

In terms of its role within the City and Region, the study area is considered similar to Kitsilano and South Granville, so the site value per dwelling unit for these districts will be accepted as being appropriate for the study area as well.

The most significant feature in this Table is the enormous jump in values that occurred in 1981. This is consistent with the general pattern of real estate values in Vancouver, which reached unprecedented heights in 1981; and which are generally conceded to have dropped by around 30% since then.

In view of the fact that, at the moment, with the exception of the last gasps from the MURB program, virtually all new apartment development has ceased, and all trend lines have been broken, the question arises as to what ought to be considered a return to "normal" circumstances under which new development might again begin to take place. In broad terms, the range could be anywhere from the $17,000 uper limit prevailing before the 1981 escalation, to the $45,000 lower limit reached in the 1981 peak, although it is reasonable to expect that an appropriate figure for site-value-per-dwelling-unit might be roughly midway between these extremes.

In order to assess the impact of F.S.R. upon site-value-per-dwelling-unit, one must also consider the matter of average suite size. Based on the anticipated resident profile developed earlier in this report, the average suite size is expected to range from 750 square feet to 900 square feet. This figure is "grossed up" by 20% (above the actual unit size) to allow for public areas such as corridors, lobbies and stairs, which have to be accounted for in F.S.R. calculations.

The final figure that must be taken into account in determining the economically feasible lower limit for F.S.R. is the assumed land cost per square foot. Bare land values in the M-1 zone of the study area are now around $45.00 per square foot; and since the values have risen, while the general trend elsewhere has been downward it is assumed that this is roughly the value that will prevail if and when things get "back to normal."

However, there are only a few vacant lots within the area, and to most prospective developers the cost of a site will be land value plus the value of the existing improvements (plus, perhaps, an additional allowance to cover relocation expenses of the existing owner). Visual inspection by the consultant team indicates that, as a general rule, properties in the area appear "ripe" for redevelopment (in terms of the condition of existing buildings) when the value of improvements is equal to, or less than half the value, of the land. This would suggest an appropriate land cost for redevelopment sites in the order of $67.50 to $70.00 per square foot. However, it was decided to investigate the full range from $45.00 to $90.00 per square foot.

From the foregoing, the charts depicted on the following page were constructed. These show a range of site-values-per-dwelling-unit based upon various combinations of F.S.R., Average Suite Size and Land Costs, as follows:

.. F.S.R. = 1.0, 1.33, 1.66, 2.0, 2.5, 3.0, 4.0 and 5.0
.. Average Suite Size = 750, 800, 850 and 900 square feet
.. Land Cost = $45.00 to $90 per square foot, in increments of $5.00

Taking $70.00 per square foot as the median land cost, and the extremes of site-value-per-dwelling-unit as lying between $17,000 and $45,000; then the proposed F.S.R. of from 1.5 to 2.0 lies comfortably within the "feasible range" as depicted on the charts.

LAND COST PER SUITE FOR SELECTED COMBINATIONS OF LAND COST PER SQ.FT, AVERAGE SUITE-SIZE, & F.S.R.

AVERAGE SUITE-SIZE 900 sq ft

FSR	LAND COST PER SQUARE FOOT									
	$45.00	$50.00	$55.00	$60.00	$65.00	$70.00	$75.00	$80.00	$85.00	$90.00
1.0	40 500	45 000	49 500	54000	58 500	63 000	67 500	72 000	76 500	81 000
1.33	30 451	33 835	37 218	40 602	43 985	47 368	50 752	54 135	57 519	60 902
1.66	24 398	27 108	29 819	32 530	35 241	37 952	40 663	43 373	46 084	48 795
2.0	20 250	22 500	24 750	27 000	29 250	31 500	33 750	36 000	38 250	40 500
2.5	16 200	18 000	19 800	21 600	23 400	25 200	27 000	28 800	30 600	32 400
3.0	13 500	15 000	16 500	18 000	19 500	21 000	22 500	24 000	25 500	27 000
4.0	10 125	11 250	12 375	13 500	14 625	15 750	16 875	18 000	19 125	20 250
5.0	8,100	9000	9900	10 800	11 700	12 600	13 500	14 400	15 300	16 200

AVERAGE SUITE-SIZE 850 sq ft

FSR	LAND COST PER SQUARE FOOT									
	$45.00	$50.00	$55.00	$60.00	$65.00	$70.00	$75.00	$80.00	$85.00	$90.00
1.0	38 250	42 500	46 750	51 000	55 250	59 500	63 750	68 000	72 250	76 500
1.33	28 759	31 955	35 150	38 346	41 541	44 737	47 932	51 128	54 323	57 519
1.66	23 042	25 602	28 163	30 723	33 283	35 843	38 404	40 964	43 524	46 084
2.0	19 125	21 250	23 375	25 500	27 625	29 750	31 875	34 000	36 125	38 250
2.5	15 300	17 000	18 700	20 400	22 100	23 800	25 500	27 200	28 900	30 600
3.0	12 750	·14 167	15 583	17 000	18 417	19 833	21 250	22 667	24 083	25 500
4.0	9563	10 625	11 687	12 750	13 813	14 875	15 938	17 000	18 063	19 125
5.0	7650	8500	9350	10 200	11 050	11 900	12 750	13 600	14 450	15 300

AVERAGE SUITE-SIZE 800 sq ft

FSR	LAND COST PER SQUARE FOOT									
	$45.00	$50.00	$55.00	$60.00	$65.00	$70.00	$75.00	$80.00	$85.00	$90.00
1.0	36 000	40 000	44 000	48 000	52 000	56 000	60 000	64 000	68 000	72 000
1.33	27 068	30 075	33 083	36 090	39 098	42 105	45 113	48 120	51 128	54 135
1.66	21 687	24 096	26 506	28 916	31 325	33 735	36 145	38 554	40 964	43 373
2.0	18 000	20 000	22 000	24 000	26 000	28 000	30 000	32 000	34 000	36 000
2.5	14 118	15 686	17 255	18 824	20 392	21 961	23 529	25 098	26 667	28 235
3.0	12 000	13 333	14 667	16 000	17 333	18 666	20 000	21 333	22 667	24 000
4.0	9000	10 000	11 000	12 000	13 000	14 000	15 000	16 000	17 000	18 000
5.0	7200	8000	8800	9600	10 400	11 200	12 000	12 800	13 600	14 400

AVERAGE SUITE-SIZE 750 sq ft

FSR	LAND COST PER SQUARE FOOT									
	$45.00	$50.00	$55.00	$60.00	$65.00	$70.00	$75.00	$80.00	$85.00	$90.00
1.0	33 750	37 500	41 250	45 000	48 750	52 500	56 250	60 000	63 750	67 500
1.33	25 376	28 195	31 015	33 835	36 654	39 474	42 293	45 112	47 932	50 752
1.66	20 331	22 590	24 849	27 108	29 367	31 627	33 886	36 145	38 404	40 663
2.0	16 875	18 750	20 625	22 500	24 375	26 250	28 125	30 000	31 875	33 750
2.5	13 500	15 000	16 500	18 000	19 500	21 000	22 500	24 000	25 500	27 000
3.0	11 250	12 500	13 750	15 000	16 250	17 500	18 750	20 000	21 250	22 500
4.0	8438	9375	10 313	11 250	12 188	13 125	14 063	15000	15 938	16 875
5.0	6750	7500	8250	9000	9750	10 500	11 250	12 000	12 750	13 500

POOR

QUALITY

ORIGINAL